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INFORMATION EXCHANGE ACTIVITIES INVOLVED IN PSYCHOLOGICAL WORK. APA-PSIEP REPORT NO. 19.

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DESCRIPTORS- *INFORMATION DISSEMINATION, *INFORMATION UTILIZATION, SURVEYS, *INDIVIDUAL CHARACTERISTICS, *COMMUNICATION (THOUGHT TRANSFER), QUESTIONNAIRES, *PSYCHOLOGISTS,

A QUESTIONNAIRE WAS MAILED TO A SAMPLE OF APA MEMBERS WHO WERE AFFILIATED WITH CERTAIN SPECIALIZED ORGANIZATIONS AND A SECOND SAMPLE OF THOSE WHO WERE NOT SO AFFILIATED TO OBTAIN A GENERAL PICTURE OF INFORMATION PRACTICES WITHIN AMERICAN PSYCHOLOGY. THIS REPORT PRESENTS FINDINGS OF THAT SURVEY UNDER THE HEADINGS--(1) PROFESSIONAL CHARACTERISTICS AND INFORMATION PRACTICES, (2) INFORMATION PRACTICES RELATED TO PROFESSIONAL CHARACTERISTICS, (3) WORK SETTINGS--CONDUCT OF RESEARCH, (4) WORK SETTINGS--CLINICAL WORK, (5) SCIENTIFIC PRODUCTIVITY, AND (6) CHARACTERISTICS OF RESPONDENTS AT DIFFERENT LEVELS OF PRODUCTIVITY. PART I OF APPENDIX C EXAMINES THE DATA ON THE CHARACTERISTICS AND INFORMATION PRACTICES WITHIN THE SPECIALIZED ORGANIZATIONS. PART II OF APPENDIX C IS A PAPER ENTITLED "PSYCHOLOGICAL ORGANIZATIONS--THEIR NATURE AND MEMBERSHIP PATTERNS" BY PAUL J. WOODS (AMERICAN PSYCHOLOGIST, 1964, VOL. 19., NO. 8, PAGES 663-669). HARD COPY OF THIS DOCUMENT IS AVAILABLE FROM THE APA'S PROJECT ON SCIENTIFIC INFORMATION EXCHANGE IN PSYCHOLOGY, 1900 SEVENTEENTH ST., N.W., WASHINGTON, D.C. 20036 (RP)

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APA-PSIEP Report #19
March, 1968

Information Exchange Activities Involved in Psychological Work

TABLE OF CONTENTS—Report #19

	Page
INTRODUCTION	165
METHOD	165
PROFESSIONAL CHARACTERISTICS AND INFORMATIONAL PRACTICES OF AFFILIATED AND UNAFFILIATED RESPONDENTS	166
The Professional Characteristics of Respondents	166
Information Practices of Respondents	167
INFORMATION PRACTICES RELATIVE TO PROFESSIONAL ACTIVITIES IN PSYCHOLOGY	168
Activities Productive of Reports: Research, Research Guidance, and Writing and Editing	168
Applied Activities: Clinical Work, Consulting and Administration	169
Teaching and Some Comparisons Among Teaching, Research and Clinical Work	170
WORK SETTINGS OF AFFILIATED AND UNAFFILIATED RESPONDENTS WHO RANKED RESEARCH AND CLINICAL WORK FIRST AND SECOND ON INFORMATION REQUIREMENTS, AND THEIR RELATION TO INFORMATION PRACTICES	171
Information Practices in Different Work Settings Relative to the Conduct of Research	171
Information Practices in Different Work Settings Relative to Clinical Work	174
PRODUCTIVITY IN PSYCHOLOGY	176
A General Picture of Scientific Reporting within Psychology	176
Characteristics of Respondents at Different Levels of Productivity	177
SUMMARY	179
Professional Characteristics and Information Practices	179
Information Practices Related to Professional Characteristics	180
Work Settings: Conduct of Research	180
Work Settings: Clinical Work	181
Scientific Productivity	181
Characteristics of Respondents at Different Levels of Productivity	181

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LIST OF TABLES

		Page
Table I	Age and Educational and APA Membership Status Data for A (Affiliated) and UA (Unaffiliated) Respondents Ranking Productive Activities as First on Information Requirements	183
Table II	Percentage of A and UA Respondents Ranking a Productive Activity First on Information Demands Who also Ranked a Productive Activity Second on Information Demands	183
Table III	Percentage of A and UA Respondents Ranking Productive Activities First on Information Requirements who Rated Various Media as "Very Important" to the Activity	184
Table IV	Percentage of A and UA Respondents Ranking Productive Activities First on Information Requirements Who Used Various Media to Locate Information and are Successful in Locating Work Related to These Activities	184
Table V	Percentage of A and UA Respondents Ranking Productive Activities First on Information Requirements Who Made Various Reports of Their Work	185
Table VI	Age and Educational and APA Membership Status Data for A and UA Respondents Ranking Applied Activities as High on Information Requirements	185
Table VII	Percentage of A and UA Respondents Ranking the Applied Activities High on Information Requirements Who Rated Various Media as "Very Important" to Their Activity	186
Table VIII	Percentage of A and UA Respondents Ranking Applied Activities First on Information Requirements Who Used Various Media to Locate Information and are Successful in Locating Work Related to These Activities	186
Table IX	Age and Educational and APA Membership Status Data for A and UA Respondents Ranking Teaching, Research or Clinical Work First on Information Requirements	187
Table X	Percentage of A and UA Respondents Ranking Teaching, Research, or Clinical Work First on Information Requirements Who Rated Various Media as "Very Important" to the Activity	187
Table XI	Percentage of A and UA Respondents Ranking Teaching, Research or Clinical Work First on Information Requirements Who Used Various Media to Locate Information and are Successful in Locating Information Related to These Activities	188
Table XII	Work Settings of Respondents Ranking Research and Clinical Work First and Second on Information Requirements by A and UA Respondents	189
Table XIII	Percentage of Respondents Rating Various Information Media as "Very Important" for Research in Different Work Settings	189
Table XIV	Percentage of Respondents Using Various Means of Locating Information for Research in Different Work Settings and Who are Successful in Locating Work Related to This Activity	190
Table XV	Percentage of Respondents Making Various Types of Reports in Connection with Their Research in Different Work Settings	191
Table XVI	Percentage of Respondents' Groups Combining Research with Other Activities Who Made Various Types of Reports in Connection with Research in Universities and Colleges	191

List of Tables – Continued

		Page
Table XVII	Percentage of Respondents Rating Various Information Media as "Very Important" for Clinical Work in Various Work Settings	192
Table XVIII	Percentage of Respondents Using Various Means of Locating Information for Clinical Work in Different Work Settings	192
Table XIX	Percentage of Respondents Making Various Types of Reports in Connection with Their Clinical Work in Different Work Settings	193
Table XX	Number of Persons Making Each Type of Report Projected to Total APA Membership from A and UA Samples	193
Table XXI	Projected Percentages of APA Members Making Each Type of Report Who Were Affiliated or Unaffiliated with Specialized Psychological Organizations and Who Ranked Various Work Activities First on Information Demands	194
Table XXII	Projected Percentages of APA Members Making Each Type of Report Who Ranked Research First or Second on Information Demands in Various Work Settings	195
Table XXIII	Projections from A and UA Samples to the Total Number of APA Members Making Varying Number of Different Types of Reports	196
Table XXIV	Age and Degree Data for A and UA Respondents Who Vary in the Number of Different Types of Reports They Made in 1962	197
Table XXV	Membership Status in APA and Memberships in APA Divisions and in Specialized Groups Held by A and UA Respondents Who Vary in the Number of Different Types of Reports They Made in 1962	198
Table XXVI	The Most Time-Consuming and Information-Demanding Activities of A and UA Respondents Who Vary in the Number of Different Types of Reports They Made in 1962	199
Table XXVII	Areas of Psychology Searched by A and UA Respondents Who Vary in the Number of Different Types of Reports They Made in 1962	200
Table XXVIII	Journals Regularly Used by A and UA Respondents Who Vary in the Number of Different Types of Reports They Made in 1962	201
Table XXIX	Attendance of Meetings by A and UA Respondents Who Vary in the Number of Different Types of Reports They Made in 1962	202
Table XXX	Use of Media in Discovery of Related Work and Resulting Contacts with Persons Doing Such Work by A and UA Respondents Who Vary in the Number of Different Types of Reports They Made in 1962	203

LIST OF APPENDICES

		Page
Appendix A	Questionnaire	204
	Percentage of Members of Each Specialized Psychological Organization within Affiliated Portion of the 1962 APA Membership and among Affiliated Respondents to Survey	206
Appendix B	Professional Characteristics and Subject Matter Interests of A and UA Respondents	207
	Percentages of Respondents Ranking Various Information Media as "Very Important" for the Activity Ranked First on Information Requirements	209
	Percentages of Respondents Who Used Various Means to Obtain Information for the Activity They Ranked First on Information Requirements and Their Experiences in Locating Closely Related Work	210
	Percentages of Respondents Who Made Various Reports of Their Work Relative to the Activity Ranked First on Information Requirements	211
Appendix C	Part I: Information Practices Within the Specialized Organizations	212
	Part II: Psychological Organizations: Their Nature and Membership Patterns, Paul J. Woods; American Psychologist, 1964, Volume 19 Number 8, pp. 663-669	221

APA-PSIEP Report #19
March, 1968

INFORMATION EXCHANGE ACTIVITIES INVOLVED IN PSYCHOLOGICAL WORK

INTRODUCTION

In order to obtain a general picture of information practices within American psychology, surveys were made of a sample of APA members who were affiliated with specialized scientific organizations and a sample of APA members who were not so affiliated.[1] The study was concerned with the scientists' activities as producers and recipients of scientific information, and information was obtained on the samples' entire range of communication activities during a single calendar year (1962). Included were publication of journal articles, presentations of oral papers, discovery of related work (and contacts with persons involved in such work), attendance of meetings, and use of standard sources to locate information.

The incidence and importance of information practices for various types of psychological work and for various scientific roles in psychology are emphasized in this report. The first section gives a general review of the data and examines differences between affiliated and unaffiliated samples, while the second section deals with the general relation of information exchange activities to psychological work activities. The report places a special emphasis on research and clinical work as two of the three principal activities of psychologists, because, as opposed to the third major activity (teaching), they are conducted in a wide range of institutions and are variously combined with other activities in the work of individual psychologists.[2] For these two activities, the third section examines information exchange with respect to type of work setting and type of personnel.

The final section discusses the level of productivity of psychologists in different fields and the relationship between productivity and scientific information practices. The levels of productivity of the samples studied, as measured by the number of different types of reports (both written and oral) they generated in the calendar year 1962, are described, and the relationship between these productivity levels and scientific information practices are analyzed. Based on the data on productivity, the number of persons taking part in various types of scientific reporting to the entire APA membership are projected, and the number of productive psychologists engaged in each activity and employed in each work setting is estimated. The second part of the section presents data on respondents, grouped according to the number of types of information-reporting activities in which they participated, and analyzes the information practices most typical of each group.

METHOD

A questionnaire was mailed to a sample of APA members who were affiliated with specialized organizations (hereafter referred to as "affiliated" or as the A sample) and a second sample who were not so affiliated (hereafter referred to as "unaffiliated" or as the UA sample). The fourteen specialized organizations, including the Psychonomic Society, the Society for Projective Techniques, and twelve others, are listed in and data on them are presented in Appendix C, Part I. These fourteen were chosen because they were the major specialized organizations in psychology during the period under study.

Those who were members of various specialized groups responded to the survey in numbers proportional to their representation within the entire affiliated portion of APA membership. UA respondents also appeared typical of the portion of the APA membership they represented, and the combination of A and UA samples seemed to be representative of the entire APA membership.

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[1] See P. J. Woods, "Psychological Organizations: Their Nature and Membership Patterns," American Psychologist, XIX (August 1964), pp. 663-669, for a description of the organizations, their members (including overlaps) and brief reviews of their history and origins. (See Appendix C, Part II.)

[2] A preliminary study of the data collected on teaching found no important differences over a wide range of of institutions. Since the questionnaire used to gather data for this report (see Appendix A) was not an appropriate instrument for use with teachers, another study focusing on information practices in teaching was carried out and a statement of its findings appear in APA-PSIEP Report #17, "The Use of Scientific Information in the Undergraduate Teaching of Psychology" (March 1967).

Questionnaire. The questionnaire (Appendix A) covered two general areas: (a) the work activities and professional characteristics of the respondent and (b) his information practices with regard to the two work activities he said put the greatest demands on him to gather and utilize scientific information.

Items on the questionnaire covered the following information: (1) ranking of work activities in terms of time demands (Question 1), (2) identification of the two activities that made the greatest demands on the respondent to gather and use scientific information (Question 2), (from that point all questions dealt with the information practices involved in the two activities which made the greatest demands to gather and use scientific information, and provision was made for the respondent to answer separately for each of these two activities) (3) rating of various information media as to their importance for the two identified activities (Question 2), (4) subject-matter areas which were searched for information relative to these activities (Question 3), (5) attendance at meetings and presentation of oral papers in connection with the activities (Question 4), (6) use of journals as sources of information and as publication outlets in connection with these activities (Question 4), (7) use of standard sources of citations and abstracts to find research related to these activities (Question 4), (8) the location of work "very closely related" to the respondent's own research or applied work and contact with persons engaged in such work (Question 4), and (9) the discovery of foreign work related to the respondent's own and the method of this discovery (Question 5).

Sampling. The sample of affiliated psychologists was obtained by taking 20% of the membership of the larger specialized groups and 100 persons or the entire membership of the smaller groups, depending on the total size of each group. From the total of APA members affiliated with specialized groups, 1,904 were included in the sample. From this group, 1,390 usable questionnaires were received; the response rate averaged 73% over the fourteen organizations (range, 63-83%). The response by each group, and the percentage of the sample who held membership in each group approximated the percentages of APA members in each group, and, therefore, the respondents seemed in this respect representative of 17.2% of APA members who belonged to such groups in 1962.

There were approximately 16,500 unaffiliated APA members in 1962 and a sample of 1,726, about 10%, were included in the survey. Of these, 1,002 (57.8%) furnished usable data. There was no means of easily establishing the representativeness of UA respondents. It was, however, possible to determine whether the A and UA respondents could be used to reconstitute an artificial sample that represented the entire APA membership. In other words, it was possible to determine whether data on the 1,390 A respondents could be combined (when regarded as a sample of 17.2% of APA membership) with data on the 1,002 UA respondents (when regarded as a sample of the remaining 82.8% of the APA membership) to generate accurate estimates of known parameters of the APA membership. Tables I and II in Appendix B show that the data on highest degree received and the level of APA membership of respondents, were comparable to those obtained in another sample of the general membership, when allowance was made for inclusion of some student affiliates in the comparison sample. Additional evidence of the representativeness of A and UA samples is shown by the two samples that produced an extrapolation to the total APA membership of 12% APA Associates, 75% APA Members, and 12% APA Fellows which is within 1% of the actual figures for that year. These findings led to the general conclusion that the two samples in many ways were representative of the portions of the APA membership from which they were drawn. However, certain of the estimates of the productivity of the persons presented in the body of the report suggest that the respondents may have been more scientifically active than the APA membership as a whole.

PROFESSIONAL CHARACTERISTICS AND INFORMATIONAL PRACTICES OF AFFILIATED AND UNAFFILIATED RESPONDENTS

In general, the A respondents represented a more active and prestigious portion of the APA membership than did the UA sample. There was also a tendency for A respondents to have interests in the experimental (as opposed to the clinical) subject-matter areas of psychology. This bias appeared to result from a historical accident, rather than any intrinsic tendency for either clinical or experimental psychologists to be more or less inclined to form or to join specialized organizations.[3] That is, at the time of the survey there were more and larger specialized organizations of experimental psychologists than of clinical psychologists.

The Professional Characteristics of Respondents[4]

Affiliated and unaffiliated samples differed markedly in the percentage who held the doctorate and the percentage who had been elected APA Fellows. While slightly more than six out

[3]Shortly after the survey, two of the clinical organizations rapidly increased in size, one by 600%.
[4]More complete data for the A and UA samples are found in Appendix B, Tables I-IV.

of ten UA respondents (63%) held a doctorate, nearly nine out of ten A respondents (89%) held this degree. A quarter of the A respondents (26%) were APA Fellows, while only one in ten (9% – about the same as in the membership as a whole) UA respondents held Fellow status. About three quarters of both samples held the status of APA Members (as opposed to Associates or Fellows), so that the large proportion of APA Fellows among the A respondents was associated with an extremely small proportion of APA Associates (4%).

The samples also differed in estimations of which work activities placed the greatest information demands on the respondents and in descriptions of which subject-matter areas were searched for information for their work. Among the principal activities, teaching was marked high on information requirements with equal frequency by A and UA respondents; about 40% of both samples listed it as first or second. Although the majority of both samples listed research as first or second on information requirements, a significantly larger percentage (14% larger) of A respondents did so than did UA respondents. Sizable proportions (25-40%) of both samples listed clinical work as first or second on information requirements, with a larger percentage (16% larger) of the UA than the A sample so responding. These differences in ranking were reflected in the subject-matter areas which the respondents searched for information (Appendix B, Table 1C). There were eight activity areas (abnormal, animal and comparative, developmental, human experimental, personality dynamics, social, testing and psychodiagnostics, and therapy) that were clearly associated with either the clinical-social or experimental areas; 12-26% more A than UA respondents searched experimental fields and 12-26% more UA than A respondents searched the clinical-social fields.

Information Practices of Respondents

Around 70% of each sample regarded journals as very important to the work activity ranked first on information requirements, and about half of each sample so regarded books. Discussions with colleagues were regarded as very important by a little over a quarter of each sample, and other media by fewer than 20% of each sample. The two samples differed less than 9% in the percentage rating each medium as very important.

Different percentages of A and UA respondents reported undertaking various information seeking and producing activities, with the more striking differences clearly resulting from the greater research activity of A respondents. The differences between A and UA respondents can best be understood by regarding information activities as lying on a continuum with, at one extreme, relatively widespread and frequent bibliographic activities (e.g., seeking information on published work through published sources). At the other extreme are the relatively infrequently-found productive and demanding ways of seeking information, such as initiating contacts with researchers in other countries. There were small differences between A and UA respondents on the more 'popular' types of activities, such as using Psychological Abstracts or talking with colleagues, but more A than UA respondents consistently reported undertaking the more uncommon information activities, such as producing reports and making contacts with persons found to be doing related work. (See Tables III and IV, Appendix B.)

The standard sources of citation – Psychological Abstracts, Psychological Bulletin, and Annual Review of Psychology – were frequently used. Of these, Psychological Abstracts was the most popular, being used by about 70% of both samples. The Annual Review and Bulletin reviews were used by about half of each sample. In addition, a fairly frequent means of locating research was the use of published programs of meetings not attended – about a quarter of each sample (29% and 24%) used such programs relative to the activity ranked first on information requirements. The A and UA samples differed in a range of 2-8% in terms of their use of these means.

The majority of respondents in both samples said they had discovered work closely related to their own during the year studied. While both samples were about equally successful in locating related work through the use of published sources, overall slightly more A than UA respondents (61% vs. 53%) were successful in discovering related work. Their greater success was apparently based on the fact that they learned of related work through informal contacts more frequently than the UA respondents did. These informal discoveries of relevant work were made both at meetings and conventions (21% A - 16% UA) and through other informal means (28% A - 21% UA). In addition, a larger percentage of A than UA respondents went on to contact the persons who were conducting relevant work, both on an absolute basis (51% A vs. 39% UA) and relative to the total number in each group who reported having learned of relevant work (84% A - 74% UA).

More A than UA respondents took part in the activities that involved more demanding information seeking and the production of reports. About twice as many A as UA respondents found foreign work that was related to their own (22% A - 12% UA). There was a similar difference

between A and UA respondents in the proportion indicating that attendance at the larger psychological meetings was helpful for obtaining information relative to their most information-demanding activity; 36% A and 26% UA respondents attended the annual APA meetings and 33% A and 24% UA respondents attended the meetings of a regional association affiliated with APA.

When only reports that appeared through refereed channels or required some other type of recognition outside the respondent's own institution are considered (i.e., excluding reports presented at the respondent's institution), the proportions of each sample who made such reports were small (see Table IV, Appendix B). Approximately one fourth of A respondents (28%) and about one sixth of UA respondents (16%) had published journal articles during the year, with one fifth of A respondents (20%) and one tenth of UA respondents (11%) having had journal articles accepted for publication. The proportion of A respondents presenting various types of oral reports outside their own institutions ranged from 13% for reports presented at regional psychological association meetings to 33% for colloquia outside respondent's institution. The corresponding percentages for UA respondents are 5% and 17%, respectively. The proportion of UA respondents presenting each type of written and oral report is approximately half the proportion of A respondents presenting the same type of report.

INFORMATION PRACTICES RELATIVE TO PROFESSIONAL ACTIVITIES IN PSYCHOLOGY

The extent to which an activity leads to the making of various reports was found to be related to the types of information-seeking undertaken by a respondent for that activity and to the value that respondents assigned to information media. For the purposes of analysis, the more productive activities – that is, those which led to the production of more reports – were accordingly separated from less productive activities. Also in presenting the data, a distinction is made between teaching and various applied activities. The first section below deals with three productive activities, the second with three applied activities, and the final section with teaching.[5]

Activities Productive of Reports: Research, Research Guidance, and Writing and Editing

One half (698) of the A and one third (339) of the UA respondents named research as the activity that made the severest information demands, a finding that reflects the frequency of the research activity itself as well as its high information demands. (About one third of the A and one half of the UA respondents who ranked research first on information requirements ranked another activity first on time consumption.) The remaining activities – research guidance, and writing and editing (other than the respondent's own research) – were far less frequently named as first on information requirements; in both samples, about one person named either activity for every ten persons who named research.

In general, persons who named any of the three activities as having high information demands tended to be well qualified in terms of the degrees they held and their membership status in APA; and the two less frequently named activities – research guidance, and writing and editing – involved, relative to research, even better qualified and slightly older persons. From the summary of these data found in Table I, it is evident that persons who ranked research first were 4-5 years younger and included in their number fewer APA Fellows than persons who ranked research guidance or writing and editing first. There were more doctorates held by persons who ranked writing and editing first than by persons who ranked the other activities first.

The secondary activities of persons who ranked research, research guidance, and writing and editing as the most demanding activity in terms of scientific information requirements are shown in Table II. If, when viewing Table II, due allowance is made for the large number of persons naming research as the most demanding single activity in terms of information requirements, it is evident that the same persons frequently name two of the three activities as first and second most demanding in terms of scientific information requirements.

The ranking of various media of scientific information exchange as "very important" by persons engaged in the three productive activities differed from that of the entire A and UA samples for two very important media: books and scientific journals. Consistently fewer than the average number of persons who ranked research and research guidance first on information requirements (Table III) rated books as very important to these activities (33-36%). On the other hand, a majority (65%) of the persons who ranked writing and editing first rated books as

[5]More detailed data dealing with information practices for each activity when it is ranked either first or second on information demands may be obtained from the Project on Scientific Information Exchange in Psychology.

very important to this activity. Scientific journals were frequently rated "very important" for research and for writing and editing, and less frequently so rated for research guidance.

Table IV contains data on means used to obtain information by persons who ranked productive activities first on information requirements and on their success in finding work closely related to their own. In general, their use of these sources and the resulting success in finding relevant work differed from that of the entire affiliated and unaffiliated samples only in the more frequent discovery of relevant foreign work. Persons who ranked research first led other groups, usually by very small margins, in the use of each of these means and in terms of discovering work closely related to their own.

The three productive activities were not associated with frequent attendance at APA or APA-affiliated meetings except for the tendency of persons who ranked research first in the A sample to attend meetings of regional associations. The data on the use of various sources to find citations relevant to the three activities show that these secondary sources were most frequently used relative to research. The frequency of the use of secondary sources relative to research guidance and to writing and editing was about average; this finding is a little surprising since books and journals, the primary literature, were frequently rated as very important to this activity.

The most striking feature about the seeking of information for the productive activities was the large number of persons engaged in these activities who found foreign work that was relevant to their own. Forty-one to 52% of A respondents and 23-42% of UA respondents engaged in the productive activities found highly relevant foreign work, while only 22% of all A respondents and 12% of all UA respondents found such work.

Table V shows the percentage of each group who made each of six different types of reports and it is evident that respondents who ranked research first most frequently made each type of report. Comparisons of the remaining two activities with the sample as a whole were not practical because research with its high productivity is so frequent in both samples as to make the samples' average productivity very high.

A better idea of the relative productivity of the less frequent activities can be obtained by considering only those persons who made a report but did not rank research first. For example, of the 467 persons in the affiliated sample who published an article based on the activity which they ranked first on information requirements, 373 ranked research first; of the remaining 94 persons who published an article and did not rank research first, 48 ranked research guidance or writing and editing first. Similar proportions are true of samples for publishing articles (or having them accepted for publication) and for oral reports.

Applied Activities: Clinical Work, Consulting and Administration

Relative to research, the applied activities were infrequently ranked first on information requirements; the most frequent – clinical work – was so ranked about one half as frequently as research (actually, a little less frequently than one half in the A sample and a little more frequently in the UA sample). The other activities occurred less often than clinical work, consulting being one third to one half as frequent and administration about one eighth as frequent. (For this reason the data for all persons in both samples who ranked administrative work first or second on information requirements have been combined in the tables that follow.) The secondary activity in terms of information requirements, or the alternative activity in the case of administrative work, very frequently included research for all three activities. Teaching was a particularly frequent secondary activity for those who listed clinical work first, and clinical work was the activity frequently designated as an alternative activity by those who listed administrative work first or second.

Age and status data appear in Table VI for the three applied groups. These contained fewer doctorates and APA Fellows than the productive groups – in fact fewer than the A and UA samples as entireties. With respect to age (year of birth), the applied groups fell generally into the interval lying between the largest and youngest productive group – research – and the older, more senior groups, and were about average in this respect for the A and UA samples.

Data on the respondents' rating of various information media as "very important" for the applied activities (Table VII) revealed a distinctive pattern for each activity; they all seemed generally to involve less use of formal media of exchange and more use of informal media when compared with the productive activities. In addition, some internal balances seem evident in these data on the use of media, i.e., as the formal written media become less important, the informal media become more important. Thus, while the four normally important media were all relatively low for administrative work, the medium of correspondence, which was rarely

rated very important (8% A - 6% UA), was frequently so rated (31%) for this activity. The principal features of the patterns of information exchange for applied activities were: clinical work relies heavily on books and discussion with colleagues; consulting (applied work) does not seem to rely on either formal written medium,[6] but rather on informal discussion both within and outside of the employing institution; and administrative work relies principally on discussion outside the institution and on correspondence.

Data on the use of means to locate information for applied activities are presented in Table VIII. The attendance of the APA meetings in order to seek information for applied activities and the use of the programs of meetings not attended was about the same as the average for A and UA samples, but the attendance of regional meetings was lower. The use of standard sources of citations was generally low; the dropoff in the use of the Psychological Abstracts as a source for the applied activities was, however, less than that for other sources.

With the exception of persons engaged in consulting, the respondents engaged in applied activities were relatively unsuccessful in locating work closely related to their own or in locating relevant foreign work. For clinical and administrative work, the respondents' lack of success in locating closely related work was reflected in lower percentages, drops of 15-20% relative to the entire A and UA samples. (There was a negligible drop of 2-3% in finding relevant foreign work.) However, their use of standard sources to find citations was 27-36% below the sample averages, with the exception of clinical work reported by A respondents; this group's use of Psychological Abstracts was only 16% below sample.

Persons who ranked consulting (or applied work) first were very high in the discovery of relevant work and, in line with their frequent rating of discussion with colleagues and with persons outside their institution as "very important" to consulting, they made more use of informal contacts in finding closely related work than did the A and UA samples. The use of printed sources for this purpose by A respondents (consulting) was less than the overall A sample, while that for UA respondents (consulting) was about equal to the overall UA sample.[7] Thus the discovery of closely related work for this activity generally seemed to proceed rather independently of the use of published materials.

So few reports were generated by the three applied activities and such small differences existed that the data may be rather simply summarized. Across all three activities of both samples, the frequency of making a convention presentation at a national APA or regional meeting affiliated with APA ranged from 2-9%; the frequency of a presentation at a colloquium (outside the respondent's institution) or at a specialized meeting, from 10-18%; and the frequency of an article published (or accepted for publication), from 3-9%.

Teaching and Some Comparisons Among Teaching, Research and Clinical Work

Teaching is a major activity of psychologists, as are research and clinical work, but it is neither a productive nor an applied activity (and, therefore, deserves separate treatment). The information demands of teaching are usually secondary to those of research, the activity with which it is most frequently paired in the activities of respondents.

This section examines information practices relative to teaching and draws several comparisons among teaching, research and clinical work.[8] Teaching was a major work activity in both samples with 39% of the A sample and 40% of the UA sample ranking it either first or second on information requirements. The most frequent alternative activity was research, especially when teaching was ranked second (71% of A respondents who ranked teaching second ranked research first and the comparable figure for UA respondents was 58%). The second most frequent alternative activity was clinical work; there was, however, no tendency for teaching to be ranked second to clinical work, and clinical work was the alternative principal activity about 20% of the time when teaching was ranked either first or second.[9]

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[6] Technical reports, which were not included among the media rated, were found in other studies to be quite important to this activity. See APA-PSIEP Report #13 and APA-PSIEP Report #14 which deal, respectively, with technical reports and books. Reports of the American Psychological Association's Project on Scientific Information Exchange in Psychology, Vol. 2, December 1965.

[7] The detailed data on which this statement is based are available from the Project on Scientific Information Exchange in Psychology.

[8] A comparison might have been made with graduate study as an activity; however, sampling from the APA membership resulted in a rather unusual group who listed graduate study as first or second on information requirements. For example, their median age at the time of the survey was about 37 years.

[9] Another interesting relation of this type occurred between teaching and research guidance, which was rarely ranked first (3% A, 6% UA) but fairly frequently ranked second to teaching on information requirements (17% A, 19% UA). This finding creates problems in interpretation because (a) the low frequency of research guidance being ranked first (while teaching is ranked second) seems surprising when taken together with a high frequency of research being ranked first, and (b) research guidance may be difficult to identify as a separate activity when either of the two principal activities are research or teaching.

Table IX presents data on the age, APA membership and educational status of persons who ranked teaching and the other two major activities first. The data show that persons who ranked teaching or research first generally had similar characteristics, except that those persons who ranked research first were 2-5 years younger, and that persons engaged in clinical work were older and included fewer doctorates and fewer APA Fellows than persons engaged in the other activities.

Table X shows the frequency with which several major information exchange media were rated "very important" for teaching, research and clinical work. The great importance of books and journals and the relative unimportance of discussion to teaching were the most prominent features of these data. Journals were not, however, quite as important for teaching as they were for research.

Table XI presents data on the use of various media to obtain information for teaching. Written media, including secondary sources, were important for both teaching and research but, in contrast to research, teaching involved very few informal contacts. The attendance of the APA convention and regional meetings and the use of the programs of the meetings not attended seem to be media that were not differentially used for the various activities, and indications of such usage for teaching were unusual. Few reports were made relative to teaching (the data were nearly identical with those for the applied activities).

WORK SETTINGS OF AFFILIATED AND UNAFFILIATED RESPONDENTS WHO RANKED RESEARCH AND CLINICAL WORK FIRST AND SECOND ON INFORMATION REQUIREMENTS, AND THEIR RELATION TO INFORMATION PRACTICES

The identity of the respondent's employer and the respondent's title were obtained from the 1962 APA Directory for those respondents who ranked research and clinical work either first or second on information requirements. These data on work setting and position were then categorized, and the analyses in this section examine differences in information practices among the respondents who fell into the resultant categories.

Table XII shows the settings in which affiliated and unaffiliated respondents were carrying on their research and clinical work when each activity was ranked first or second on information requirements. The majority of respondents who listed research were at universities or colleges (63% A, research first; 55% A, research second; 51% UA, research first; 48% UA, research second). The next most frequent location for research was an industrial setting; this included only one quarter to one third as many people as were in university settings. These two types of settings included about 75% of A respondents who listed research first or second and 60% of UA respondents who listed research first or second. The remainder were widely distributed in a variety of settings, with few marked differences in frequency between A and UA samples or, within these samples, between persons listing research first and second on information requirements. There was a slight tendency for more UA than A persons who listed research first to be associated with state institutions and a similar tendency for more UA than A persons who listed research second to be more frequently in VA hospitals.

Clinical work was less concentrated in any one type of institution. The most frequent setting for those who listed clinical work second was in universities and colleges (25% A -30% UA). When clinical work was listed first, A respondents were most frequently in private practice, while comparable UA respondents who ranked clinical work first or second worked in primary and secondary schools.

A tabulation of the work setting versus title was made for A and UA respondents who ranked clinical work and research first or second on information requirements. (See below for information on some of the problems in categorizing academic titles.) There was, however, nothing of interest in these data that is not evident in the data already discussed; titles have an intrinsically high correlation with both the setting and professional activity that places the highest information requirements on the respondents. Thus, nearly half (44-47%) of the A respondents who ranked research first or second had academic titles. For UA respondents, about a third (33-34%) had these titles. In general, there was a high degree of scattering, particularly with regard to clinical work; the 10 work settings x 7 titles matrices contained an average of only about one cell per matrix with as many as 10% or more of the persons in the group. The result was that only universities and colleges contained a sufficient number of respondents to permit a meaningful breakdown according to type of title, and this breakdown was only practical for persons who ranked research as first or second on information requirements.

Information Practices in Different Work Settings Relative to the Conduct of Research

Tables XIII, XIV and XV present data on information practices undertaken relative to research in four settings: universities and colleges, the Federal government, private industry,

and state residential institutions. Data for A and UA respondents who ranked research first or second on information requirements have been combined within each of the four settings.

The four settings included 1,197 of the 1,490 A and UA respondents who ranked research first or second on information requirements. There were enough respondents in the academic setting to permit a breakdown of each setting by title within the table and in the discussions below. In addition, the data from these respondents were also subdivided according to the work activities that were combined with research in the duties of the respondents.

Researchers holding academic titles in universities and colleges. These respondents held a professorial rank and were unusually active in both seeking information and making reports. In keeping with their productivity, both their educational level and their APA membership status were high (95% held doctorates and three out of ten were Fellows).

As a group, most of these respondents were affiliated with one of the specialized organizations and listed research as the most demanding activity in terms of information requirements (seven out of ten in each case). The finding that the alternative activities of 80% of these persons were teaching and the guidance of research completes the picture of their fulfilling traditional academic roles.

In Table XIII, they are distinctive in their relatively frequent ranking of journals as "very important" to their research (85%) and their relatively infrequent assignment of this rating to discussion with colleagues (18%). The frequent rating of "very important" assigned to discussion with colleagues by respondents who did research in other settings and by persons who held research titles in universities and colleges suggests that the low ranking of this type of exchange by the respondents with academic appointments may reflect the staffing policy of many departments of psychology – these persons may actually desire or be capable of using discussion with colleagues as an effective medium but have no one at the same level and with the same interests with whom to carry on discussion. That is, well-rounded departments are developed by selecting persons from different subareas of psychology; in the other settings staffing may develop groups who specialize in related lines of research. Persons who hold research titles in universities and colleges rank informal discussion high; however, they are often associated with a senior person directly involved in the same area.

Table XIV shows that respondents with academic titles were among those who used with highest frequency each means of locating work related to their own. However, it is evident that all groups were high on using meetings, secondary sources, etc., to locate related work, and very frequently they made contact with the authors of the related work they discovered. Table XV shows that the respondents with academic titles very often made reports based upon their research. They led other research groups (Table XV) in terms of reports to regional meetings and in having articles published in 1962.

Researchers holding administrative titles in universities and colleges. These respondents included department heads, directors of institutes and centers, deans, etc., and their number included persons holding concurrent academic titles – usually that of professor. With these positions, their pattern of scientific communication differed considerably from the respondents just discussed, and their information exchange activities were typified by a higher degree of reliance on contacts and more use of oral reports.

In keeping with their position, a high percentage of this group held doctorates (93%) and 40% were APA Fellows. Sixty-six percent were affiliated with a specialized organization and 78% listed research as their most demanding activity in terms of gathering and using scientific information. Thus, their administrative titles did not result in much imposition of information demands and only 3% even listed administrative work as an alternative to their most demanding activity in terms of information requirements. In general, they showed about the same pattern of work activities as the respondents discussed in the preceding section, with 72% naming either teaching or research guidance as the alternative activity that made the greatest informational demands.

These respondents showed no distinctive pattern in terms of the frequency with which they rated media as "very important" (Table XIII). With regard to research, in the general pattern of frequent use of media to locate related work (Table XIV), these respondents were prominent only in their use of contacts with authors of related work. Thus, they led in the percentage who contacted the authors of closely related work (67%) and were high (19%) in contacting authors of relevant foreign work (the highest percentage of any group was 22%). They were the highest of all research groups (37%) in their attendance at one type of meeting – the conference.

In making reports, respondents holding administrative titles were the lowest on both of the measures of journal article productivity[10] and led in three out of four measures in making oral reports – the most distinctive pattern among all of the research groups. These findings (Table XV) raise the question of where such orally reported material eventually comes to repose, and one speculates that this group may include a large number of book writers.

Researchers holding research titles in universities and colleges. These persons held the title of either research associate, research assistant, or scientist in a university or college. While only a few of them (4%) listed graduate work as the alternative activity that made high information demands, it appears likely that some of the research was done in connection with degree requirements, since 30% of this group held degrees below the doctorate and 17% had associate membership in APA (only 11% were APA Fellows). Nevertheless, they appeared to be a scientifically active group, with about the same information practices as persons holding professorial titles, and with 80% belonging to a specialized organization and 78% listing research as the activity making the greatest information demands.

Table XIII shows that relatively large percentages of these persons rated the major media as "very important" to their research. The unusual feature of the resulting data – that 37% rated discussion with colleagues as "very important" – was discussed earlier, and it was speculated that these persons generally worked with a more senior person and found this exchange of great value. Table XIV shows that they were the most active of any research group in using varied means to discover work related to their own. This general tendency probably reflects the fact that a larger percentage of this group ranked research first on information requirements. (Early portions of the present report show that research made the greatest demands of any activity.) The high attendance at APA meetings and regional meetings suggests that the work of these persons was generally well supported financially and leads to the speculation that most of these respondents worked under Federal grants. Table XV shows that these persons were very productive of reports and high on most of the measures of productivity.

Researchers holding positions in Federal government facilities. These respondents carried out research at Federal installations, other than hospitals, and had a more applied orientation than any of the groups already discussed (20% ranked consulting and applied work as the alternatively most demanding activity). About a quarter of these persons held a Master's degree and the remaining three quarters held doctorates. Eighty-two percent were APA members while only 10% were Fellows. This group was relatively low in the percentage affiliated with specialized organizations (63%) and about average in the percentage who listed research as placing the severest information requirements (77%). This group displayed no especially distinctive characteristics in their information practices, as shown in Tables XIII through XV. Apparently, neither the status nor setting placed any special restrictions on these respondents' informational activities.

Researchers in private industry or industrial consulting firms. These respondents constituted the most applied of all of the research groups; nearly one half (48%) listed consulting and applied work as the alternative activities that placed high information demands on them. This group was lowest in the percentage who listed research as having the highest information demands of all activities (63%) and, among the research groups, low in the percentage of doctorates (78%) and APA Fellows (15%). Nevertheless, a sizable percentage (72%) was affiliated with specialized organizations.

Table XIII shows that their frequency of rating written media (books and journals) as "very important" was relatively low compared to other research groups, while the same measure for informal media was relatively high. Table XIV shows that their use of publications to locate citations was the lowest of all research groups. Their discovery of related work, contacts with the authors of such work, and the discovery of relevant foreign work and contact with its authors were also rated low, but the percentage margin relative to other research groups was considerably less than in the use of more formal means. Table XV shows that relatively small percentages of this group made any of the various types of reports.

Researchers in state residential institutions. These respondents show some special characteristics in information exchange, although the characteristics do not readily fall into any pattern. They were relatively low on a number of measures of status or visibility (72% doctorates, 5% APA Fellows, and 45% affiliated with specialized organizations), but 82% listed research as the most demanding activity in terms of information requirements.

Table XIII shows that this group had the highest percentages who rated books and journals "very important" to their research. Their use of various means to discover relevant work,

[10] One of these rates is identical with another research group in Table XV.

including attending conventions, was about average for all research groups. With one exception (a high proportion, 22%, contacted foreign psychologists doing relevant work), these respondents were about average in the discovery of related work (foreign or otherwise) and in contacting the authors. In Table XV, these respondents were the lowest group in terms of oral reports but were about average in publishing journal articles.

Some effects of pairing other activities with research in an academic setting. Research was rather frequently combined with teaching, research guidance, and writing and editing in universities and colleges, and four pairings of activities were found to include 70% of all respondents in academic settings who listed research as either first or second on information requirements. These combinations were: (a) research combined with teaching, excluding respondents who gave any rank to clinical work on time consumption (N=269); (b) research combined with teaching, but including only persons doing some clinical work (N=129); (c) research combined with research guidance, excluding respondents engaged in clinical work (N=130) (there were only 32 respondents with this pairing of activities who were involved in any clinical work); and (d) research combined with writing and editing (N=72). All of these groups were high in the percentage of doctorates; the range was from 95-100% and the highest was the combination of research, and writing and editing. On two other measures – the percentage of APA Fellows and the percentage of the group affiliated with specialized organizations – there was a marked difference between the research-teaching-clinical group and the other three groups. The research-teaching-clinical respondents included 17% APA Fellows, while the other groups ranged from 31-43% Fellows, with research-writing and editing being the highest. Also, only 43% of the research-teaching-clinical group were affiliated with specialized organizations, while 78-82% of the members of each of the others were so affiliated. Incidentally, only one group of all the groupings discussed anywhere in this report can be closely identified with a single organization: 82% of the research-writing and editing group were affiliated with a specialized organization and, of these, 77% were members of the Psychonomic Society.

The difference between the research-teaching-clinical group and the remaining three groups extended to their production of reports, but not to their use of media for information. The respondents who ranked research-teaching-clinical were, as shown in Table XVI, lower in terms of the percentage of the group who undertook each of the major types of reports than the other groups, all of whom were especially productive. In addition to the tendency of the research-writing and editing group to be involved in making reports of research through journals, they were (like persons holding administrative titles and doing research in academic settings) frequently involved in making APA convention presentations and in giving colloquia outside their own institution. On the other hand, all four groups were high in terms of their evaluation and use of information media without one or another of the groups being consistently high in their overall ranking of media. In general, the four groups that combined research and another activity closely duplicated the data of the academic group with professorial titles in seeking information and discovering related work and, like that group, were both active and successful in these efforts.

Information Practices in Different Work Settings Relative to Clinical Work

Tables XVII, XVIII, and XIX display data on information practices relative to clinical work in five settings: universities and colleges, primary and secondary schools, VA hospitals, state residential institutions, and private practice. These settings include 498 (68%) of the 733 persons who ranked clinical work first or second on information requirements.

The most interesting features of these data are the differences among clinicians in each of the five settings in terms of the various measures of professional status and in scientific activity. Consequently, the differences in information practices among the settings seem more attributable to this factor than any other, and there is less evidence of distinctive patterns in the data on clinical work than there was in the research data. The groups in each setting are discussed below in the order of ascending status and scientific activity of respondents.

Clinicians in primary and secondary schools. This group of respondents was low in terms of the percentages of doctorates (34%), membership in specialized organizations (13%), and APA Fellows (4%). Clinical work was most frequently (65%) the activity that placed the greatest demands on them to gather and use scientific information. As the other activity for which scientific information was required, about one fifth of the respondents (22%) listed research; one fifth, teaching (18%); and one fifth, nothing at all (20%). They were relatively high (11%) in terms of listing graduate study as the alternative activity having information demands.

Table XVII shows that the frequency with which they rated various media as "very important" was typical for the clinical groups considered in this section. While their attendance at meetings was relatively in line with other clinical groups, as shown in Table XVIII, their use of

various formal sources to discover related work and their success in finding closely related work and contacting persons engaged in such work were all low. These respondents were, however, outstanding in their attendance of two types of meetings (not reported in the table): state conventions (38%) (other clinical groups ranged from 24-31%) and conferences (34%) (other clinical groups ranged from 21-29%). All clinical groups were high relative to the research groups on attendance at state conventions. Table XIX shows that among the clinical groups under discussion – all relatively low in producing oral and written reports – these respondents were the lowest.

Clinicians in state residential institutions. This group was low in the percentage of doctorates (45%), the percentage holding membership in specialized organizations (38%), and the percentage of APA Fellows (6%), yet comparable to the preceding group on the last of these measures (APA Fellows). Most of these respondents (62%) listed clinical work as the activity that made the greatest demands to discover and use scientific information. One quarter (27%) listed research as the other activity that required scientific information; one fifth (22%) teaching; and a little less than one fifth (16%) nothing at all. Ten percent listed graduate study as an alternative work activity to clinical work.

As a group, therefore, these respondents turned out to be rather similar to clinicians in secondary and primary schools. They showed the same pattern of rating media as "very important" to clinical work (Table XVII) and were above the school group on most of the measures of producing reports. Their use of various media, their discovery of related work, and their contacting of persons engaged in such work were, however, in line with the other clinical groups.

Clinicians in VA hospitals. The most sizable difference in status and activity within the clinical groups lies between the two rather similar groups just discussed and the three groups that are discussed in this and the following two subsections. The vast majority (75-92%) of the latter groups – clinicians in VA hospitals, in universities and colleges, and in private practice – held doctorates and sizable percentages were APA Fellows (12-19%). These three groups were generally of higher professional prestige and were higher in scientific and professional activity.

Clinicians in VA hospitals included the highest percentage of doctorates (92%), although they were lowest among the three more prestigious groups in the percentage of APA Fellows (12%). Of this group, 43% were members of specialized organizations. A sizable percentage (43%) of this group were engaged in research, but, in contrast with the finding that research information needs generally take precedence over those of other activities, 61% listed clinical work as placing the greatest information demands. (When only those persons who combined research and clinical work are considered, a slight majority (52%) listed clinical work as placing the greatest information demands on them.) However, the combination of these activities had an effect – the research-clinicians subgroup was consistently slightly more active on measures of seeking information and producing reports relative to clinical work.

Clinicians in VA hospitals showed the pattern in rating media as "very important" that was typical of the clinical groups (Table XVII). They were, by small amounts, lowest with regard to books and highest with regard to discussion with colleagues. Table XVIII shows that they were the most frequent in their attendance at APA and regional psychological meetings. In addition, a relatively large percentage attended colloquia that bring in outside speakers, suggesting that this form of meeting must be a frequent one in their work settings.

The frequency of their use of the Annual Review of Psychology was relatively high (43%), but the remaining measures of their information-seeking in Table XVIII are in line with the other clinical groups. Table XIX shows that the three prestigious groups were relatively high in the percentages that produced reports and that there were no sizable differences among them.

Clinicians in universities and colleges. These respondents frequently had doctorates (75%), and a sizable number (14%) were APA Fellows. Their most distinctive characteristic was the degree of their involvement in other activities; 74% listed research or teaching as alternative work activities that placed high information demands on them and they included the lowest percentage of respondents who listed only clinical work as having high information demands (2%). As was the case for the previous group, the combination of research with clinical work again seemed to increase the amount of scientific information activity relative to clinical work, but in this subgroup (i.e., clinicians in universities and colleges) clinical work was ranked only 27% of the time as the activity that had the greatest information demands.

Clinicians in universities and colleges showed the typical pattern of other clinical groups in the frequencies with which they assigned the rating of "very important" to media (Table XVII) and in seeking information and contacting persons doing related work (Table XVIII). Table XIX

shows that this group was relatively productive of oral reports, as were all of the three more prestigious groups, and had the highest average percenage of any clinical group for having journal articles published or accepted for publication.

Clinicians in private practice. These respondents revealed a distinctive pattern of activities and information practices. They were high in percentages of doctorates (88%), APA Fellows (19%), and members of specialized organizations (82%). The great majority (77%) listed clinical work as the most information-demanding activity. With regard to other activities, a little more than one quarter (27%) listed teaching.

These respondents were, thus, the most prestigious and most involved in clinical work of all the clinical groupings. The percentage that rated each medium as "very important" is typical of all the clinical groups (Table XVII) and, with the exception of making little use of the Annual Review of Psychology, they were typical in their pattern of seeking information and in their success in discovering related work and contacting persons doing such work. The most interesting feature of the data on their production of reports, as shown in Table XIX, was their high frequency of oral reports, a measure on which they clearly led the other clinical groups.

PRODUCTIVITY IN PSYCHOLOGY

A respondent's participation in scientific reporting was taken, for the purpose of the present discussion, as the basic measure of productivity. The six types of reports selected for this measure all involved editorial or program committee review or some other form of outside recognition of the respondent's work. They included presentations at meetings of APA, regional associations, specialized organizations, and colloquia given outside the employing institutions, as well as published journal articles and journal articles that had been accepted but not published.

Two derivative measures were also used. The first of these was the projected number of persons who participated in a type of reporting in the year 1962. This projection was made of the entire APA membership or of a particular sector of it based on some special characteristic, such as affiliation with the specialized organizations under study, engagement in certain work activities, or employment in a certain work setting. Briefly, the idea behind this measure of projected participation was to consider the 1,390 affiliated respondents as representative of the 3,428 APA members who were affiliated at the beginning of 1963 with the specialized organizations under study. Similarly, the 1,002 unaffiliated respondents were representative of the remaining 16,519 APA members at that time.[11] Both projections were combined to give an estimate for the entire 1962 membership of 19,947.[12] The second derivative measure was the number of types of reporting in which the respondent was engaged in 1962; this number may range from zero to six and gives both an indication of productivity and, possibly, of the amount of effort respondents devoted to seeking visibility.[13] For simplicity, the measure is referred to in this discussion as productivity even though it is the number of types of reports rather than the total number of reports.[14]

The first of the two sections that immediately follow attempts to develop a general picture of scientific reporting within American psychology and deals primarily with projections of the numbers of psychologists who participated in the various types of reporting. The second section deals with the characteristics of psychologists who exhibited different degrees of productivity in terms of the number of types of reports they undertook.

A General Picture of Scientific Reporting within Psychology

Table XX displays the projected numbers of A and UA APA members who participated in the six different types of scientific reporting. The table presents extrapolations from the samples of 1,390 affiliated and 1,002 unaffiliated respondents to corresponding portions of the APA membership. The most populous groups were involved in the production of journal articles and the least populous in the APA and regional conventions presentations. The major numerical contribution of UA APA members in terms of making each type of report is the most important

[11] A discussion of the representativeness of these samples occurs earlier in the method section of this report and, although the differences between respondents and nonrespondents have been typically found to be small (also see APA-PSIEP Report #9), the nature of the differences, in view of present findings, suggests that respondents would be more productive than nonrespondents. It is difficult to assess the resulting overestimation; its upper limit is probably on the order of 15%, since an error of 20-25% would be detectable in, for example, the projected number making APA and regional convention presentations.

[12] APA membership is 27,250 at present (March, 1968).

[13] The double weight assigned journal articles, i.e., the inclusion of articles accepted in 1962 but not published in addition to the publication of journal articles in 1962, should be noted.

[14] The number of reports would not be available from the questionnaire for any of the six types of reporting.

finding displayed in Table XX. However, while there were roughly five times as many UA APA members as there were A APA members, only 2-3 times as many UA APA members as A APA members participated in various types of scientific reporting. Table XX, thus, displays the previously discussed differences between A and UA respondents in terms of the number of types of reports.

Table XX presented the possibility of comparing the number of persons who made APA convention presentations with the number listed on the convention program. Since 1,408 persons were found on the program, as opposed to the projected 1,714, a spot check was made to determine the basis of this discrepancy. The outcome of this check suggested that there was both a sizable overestimation and a considerable number of unofficial presentations, particularly by UA respondents. However, since nearly all of the discovered unlisted persons gave reports relative to research and the few unlisted persons in the A sample belonged to an organization that meets at the same time and in the same hotels as the APA convention, these figures probably include no great amount of misrepresentation by respondents.

Table XXI displays the differences in productivity among various work activities and between activities ranked first and second on information demands. It is evident that research was ranked first on information demands by the majority of persons who reported in any of the six ways, and that few persons participated in any type of reporting only through a second-ranked activity.

An examination of the participation through second-ranked activities only showed that most of these reports were made relative to research. Accordingly, a new arrangement of the data was made to show the percentage of persons who made various reports relative to research, with research ranked either first or second on information demands. (This tabulation takes no account of the respondents' undertaking a specific type of report both with regard to research and to some other activity.) The resulting table (Table XXII) shows the importance of research, and particularly of research in academic settings, as an activity associated with making reports. These data may be summarized as follows: (a) for each type of report, 60-80% of all participants who produced reports produced them relative to research, and 35-53% of all reports were produced relative to research in only academic settings, and (b) among the various types of reporting, research in any setting and particularly research in academic settings were the activities most often associated with the production of journal articles.

Table XXIII completes the general picture of productivity by showing the projected numbers of persons who made zero to six (all) of the different types of reports in a single year. A major finding was that a slight majority of the entire APA membership made zero types of reports. This majority was attained by combining one third of A members with between one half and three fifths of the UA members. At the other end of the distribution of productivity, a projected 2,789 APA members engaged in three or more different types of reporting.[15] Dropping this by 10-15%, to allow for the respondent-nonrespondent bias, gave an estimate of 2,400-2,500 for the number of persons who constituted the most scientifically active portion of the psychological community. It was also found that the UA APA members contributed smaller and smaller portions of successively higher points on this scale of productivity, going from 90% of persons who made zero types of reports to 52% of persons who made 5-6 types of reports. The following section examines the characteristics of persons differing on this scale of productivity.

Characteristics of Respondents at Different Levels of Productivity

Tables XXIV-XXIX present data on a variety of personal and professional characteristics and on behavior in seeking and obtaining information for respondents grouped according to the number of types of reports made during 1962. The affiliation of the respondent with one of the specialized organizations under study in the present report remains a major variable and, therefore, A and UA respondents' data are presented separately. There were so few respondents in both groups who made four or more types of reports that they were grouped in both samples to obtain useful N's (4-6 reports group). The discussion that follows is intended as a summary of principal findings.

Table XXIV presents two types of data: the percentage of doctorates at each level of productivity and the percentage at each level, divided according to degree, whose year of birth fell into each five-year interval. The last data are summarized as median year of birth (calculated from the interval data).

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[15] The selection of this criterion was somewhat arbitrary. Many of the measures appeared to change continuously with number of types of reports, while others broke sharply between the 3- and 4-6 reports (e.g., percentage of APA Fellows and attendance of APA and regional meetings) and between 3- and 2-reports groups (e.g., percentage of doctorates).

The percentage of doctorates rose with productivity. In the A sample, 80% of the 0-reports group held the doctorate, while, at the highest levels of productivity, close to 100% held this type of degree. In the UA sample, the range described was 53-89%, the highest level of productivity being about equivalent to those making 1 or 2 types of reports in the A sample.

The age data bore less relation to productivity. The A sample was older by about one year for each reports grouping, and respondents not holding the doctorate were consistently younger. In each sample, those making 0 types of reports were one or two years older than any of the others.

Table XXV contains data on APA membership status, membership in APA Divisions and, for the A sample, membership in specialized organizations. Data on APA membership status showed that the majority of all groups were APA Members and that there were few APA Associates in the A sample, while a sizable percentage of them existed in the UA sample. There was a marked trend for membership [illegible] to increase with productivity. In the A sample this trend was shown by a 24% increase [illegible]PA Fellows; nearly all of the corresponding decrease occurred in the percentage of APA Members. In the UA sample, there was a 16% increase in APA Fellows; the corresponding decrease occurred in APA Associates. The highest UA group would be intermediate to those making 0 and 1 type of report in the A sample.

Data for the A sample on their membership within the specialized groups under study show that membership within the seven groups tended to increase with productivity. Four of these groups – Psychonomic Society, Physiological and Comparative Psychology, Psychometric Society, and the Animal Behavior Section – included substantial percentages (15-49%) of those making 4-6 types of reports. The remaining three – Society of Experimental Psychologists, Society for Psychophysiological Research, and Verbal Behavior Groups – each included 9% of those making 4-6 types of reports.

Membership in the principal clinical groups – Psychologists interested in the Advancement of Psychotherapy, Psychologists in Private Practice, and Society for Projective Techniques – decreased with productivity, from 12-21% for those making 0-3 types of reports to 4-7% for those making 4-6 types of reports. Membership in the Human Factors Society also decreased (from 16% to 9%) with increased productivity.

Table XXVI presents data on the respondents' ranking of work activities as most time-consuming and as most demanding of scientific information. At the highest level of productivity (4-6 types of reports), research was ranked as the first or second most demanding activity in terms of scientific information by 90% of the A sample and 86% of the UA sample, and all three of the productive activities (research, research guidance, and writing and editing) increased in time-consumption and information demands as the level of productivity increased. The applied and clinical activities plus administrative work and graduate study decreased on these measures as productivity increased.

Table XXVII contains the percentages of each group who searched each area within psychology for at least one of their principal work activities. In general, there was no marked tendency for the number who searched these areas to increase with increased productivity. Both of the most productive (4-6) groups in the A and UA sample frequently (49% and up) searched abnormal, developmental and human experimental psychology and psychological statistics. The A sample 4-6 types of reports group was particularly characterized by high percentages who searched human experimental and physiological psychology while the UA sample 4-6 types of reports group was similarly characterized by high percentages who searched personality and social psychology.

The searching of three areas — animal and human experimental psychology and psychological statistics – increased in both samples with increases in the level of productivity. Most of the increase in the searching for information on psychological statistics occurred between the 0 and 1 types of reports group. Among the variety of relationships between persons searching a particular field and changes in the level of productivity, the most interesting were: the decrease in searching of both A and UA samples as productivity increased (in two applied areas); the high unchanged searching in the UA sample; the decrease in searching of the A sample as productivity increased (two areas central to clinical work); and the increase in searching of an area in one sample as productivity increased, while searching remained low and unchanged in the other sample with increased productivity (the two areas, physiological and social, that seemed to typify productivity within each sample).

The percentage of each group that used each of 17 journals (selected on the basis of being used by 20% or more of each of the total A and UA samples) is displayed in Table XXVIII. While

the number of subject-matter areas searched showed no tendency to increase with the level of productivity, the number of journals used did tend to increase. Only two journals, Psychological Abstracts and American Psychologist, were used by a majority of those making 0 types of reports in the A sample. A majority of those making 0 types of reports in the UA sample used these two journals and in addition used the Journal of Abnormal and Social Psychology and the Journal of Consulting Psychology. At the other end of this scale of productivity, a majority of the UA sample 4-6 types of reports group used these same four journals, plus the Psychological Review, Psychological Bulletin, and Contemporary Psychology (almost as many, 49%, also used Science). A majority of those in the A sample making 4-6 types of reports used the Journal of Comparative and Physiological Psychology, Psychological Bulletin, Psychological Review, and Science, in addition to the generally popular Psychological Abstracts and American Psychologist.

The data on journal use indicate a trend for journal use to increase with productivity. In particular, the use of experimental psychology journals, of the general journals (including Science) and of the Journal of Abnormal and Social Psychology, a central journal in psychology at the time,[16] were all high in the high-productivity groups. These findings suggest that productivity may be one dimension underlying the general factor in the earlier study of journal use.[17]

Table XXIX gives data on meeting attendance and Table XXX displays the discovery of relevant information by persons who made different numbers of types of reports. The trend in the data in both tables is clear enough to permit a simple summarization. Meeting attendance, the use of various contacts to seek information, and success in the discovery of information all increased as the level of productivity increased.

Two minor aspects of Table XXIX seem to require additional comment. Although those making the 3 types of reports and those making 4-6 types of reports were fairly similar in general and nearly identical in terms of most measures (as shown in Table XXX), they differed markedly (Table XXIX) in attendance of the APA convention and regional meetings (an almost 20% difference in two comparisons and 17% and 12% differences in the other two). One might at first regard this to be an artifact, i.e., persons making 4-6 types of reports must attend all of those meetings to make each of the different types of reports; however, attendance at meetings of specialized organizations showed no difference of comparable size, even though reports given at these meetings were another measure used in establishing the level of productivity. There seems to be, therefore, some unusual or special attraction of the APA national and APA-affiliated regional meetings for the highly productive psychologist.

A second point of interest is the large percentages of the UA groups who made two or more types of reports at the meetings of specialized organizations that they attended, even though they were not affiliated with the 14 organizations under study in this report. A spot check of both A and UA samples revealed a great variety of meetings attended by respondents. In the A sample, nearly all instances (95%) of meeting attendance involved some national organization or another, 43% involved interdisciplinary clinical groups, and 20% of the instances were meetings of the 14 organizations under study. In the UA sample, a sizable percentage (17%) of instances of meeting attendance involved regional or state societies. There was a greater attendance of a diverse set of applied organizations: 33% involved national interdisciplinary clinical organization, 16%, national educational groups, and 10%, national medical or health organizations. (An additional 8% attended state and regional medical meetings.)

SUMMARY

The report presents findings from a survey of information activities in 1962 of a sample of APA members who were affiliated with certain specialized scientific organizations and a second sample of APA members who were not so affiliated.

Professional Characteristics and Information Practices

In contrast to the unaffiliated (UA) respondents, the affiliated (A) respondents represented a more active and prestigious portion of the APA membership, undertook more demanding activities to discover information, and were more productive of reports. The A respondents tended to have more interests in the experimental than in the clinical subject-matter areas of psychology. For the first and second activities that placed on them the greatest information demands, a majority of each sample named research, about 40% named teaching, and 25-40%

[16] See APA-PSIEP Report #9, "The Use of Scientific Journals by Psychologists and the Readership of Current Journal Articles," Reports of the American Psychological Association's Project on Scientific Information Exchange in Psychology, Vol. 1, December 1963.

[17] Ibid., Factor 1 in Table II, p. 221.

named clinical work. About 70% of both samples named journals and about one half named books as very important to their most information-demanding activity. Psychological Abstracts, Psychological Bulletin, and the Annual Review of Psychology were the most frequently-reported sources of citations, and programs of meetings not attended were used fairly often to locate research. More A than UA respondents were successful at finding work closely related to their own, more were able to find related foreign work, and more attended the larger psychological meetings to seek information related to their most information-demanding activity.

Information Practices Related to Professional Characteristics

Among the productive activities – research, research guidance, and writing and editing – one half of the A respondents and one third of the UA respondents named research as their most information-demanding activity; in both samples only about one person named research guidance or writing and editing for every ten who named research. Persons who named any of the three activities were well qualified with regard to the degrees they held and in their APA membership status. They differed from the entire A and UA samples in their relative ranking of books and journals as "very important" in information exchange and in the greater frequency with which they found relevant foreign work. Those who ranked research first made oral reports and published articles more frequently.

Among the applied activities – clinical work, consulting, and administration – clinical work was ranked first on information requirements and research and teaching were frequent secondary activities. The applied groups contained fewer doctorates and APA Fellows than the productive groups and were also lower on these measures than were the overall A and UA samples. The clinical work group tended to rely on books and discussions with colleagues, consulting on informal discussion inside and outside the employing institution, and administrative work on discussion outside the institution and on correspondence. Generally, those in applied activities had lower-than-average attendance at regional meetings, used few standard sources of citation, made relatively few reports, and infrequently found work relevant to their own. However, those who ranked consulting first were high in discovering relevant work through informal contacts.

Teaching was more frequently ranked second than first on information requirements. The most frequent alternative to teaching was research and the second most frequent was clinical work. Books and journals were very important to teaching and discussion relatively unimportant. Those in teaching were only slightly successful in finding related work or relevant foreign work and few reports were made relative to teaching.

Work Settings: Conduct of Research

The majority of those who ranked research first or second on information requirements were at universities or colleges and the next most frequent location was in an industrial setting. Researchers holding academic titles in universities and colleges held one of the professorial ranks and were unusually active in seeking information, making reports, and publishing journal articles. Ninety-five percent held Ph.D.'s and three out of ten were APA Fellows. Most were affiliated with a specialized organization and seven out of ten named research as their most information-demanding activity. Teaching and research guidance were the main alternative activities. They frequently ranked journals as very important to their research and infrequently ranked discussions with colleagues in this way.

Researchers holding administrative titles in universities and colleges generally also held the rank of professor and relied on personal contacts more than did those with only academic titles. They also made oral reports more frequently. Ninety-three percent had Ph.D.'s and 40% were APA Fellows. Two thirds were affiliated with a specialized organization and over three fourths named research as their most information-demanding activity (only 3% named administration in this way). They led in the percentage who contacted authors of related work, were high in contacting authors of relevant foreign work, and were highest of all the research groups in their attendance at conferences.

Among researchers holding research titles in universities and colleges, 30% held degrees below the doctorate and only 11% were APA Fellows. Four fifths belonged to a specialized organization and 78% listed research as the most information-demanding activity. Thirty-seven percent rated discussions with colleagues as "very important" to their research. These respondents were the most active group in discovering work related to their own, had a high attendance at APA and regional meetings, and led all groups in the percentage publishing journal articles.

Researchers in Federal government facilities had a more applied orientation than the previous groups. Three quarters had Ph.D.'s and only 10% were APA Fellows. They were relatively low (63%) in their affiliation with specialized organizations and about average (77%) in naming research as most information-demanding.

Nearly one half of the researchers in private industry or industrial consulting firms named consulting or applied work as their most information-demanding alternative activity. The group was low in doctorates (78%) and APA Fellows (15%). Over 70% were affiliated with specialized organizations. Their use of publications to locate citations was the lowest of all research groups and they were also low in discovering related work and contacting its authors.

Researchers in state residential institutions were relatively low in measures of educational or APA membership status, but 82% named research as their most information-demanding activity. They had the highest percentages who rated books and journals "very important" to their research.

In general, the groups that combined research with another activity (teaching, research guidance, or writing and editing) were very similar to the academic group with professorial titles in seeking information, discovering related work, and being active and successful in these efforts.

Work Settings: Clinical Work

Clinicians in primary and secondary schools were low in the percentage of those who held Ph.D.'s, membership in specialized organizations, and APA Fellows. They were also low in their use of formal sources to discover related work, their success in finding related work, and contacting persons engaged in such work. Although they were the lowest of all the groups in producing oral and written reports, they were outstanding in high attendance at state conventions and conferences. As a group, clinicians in state residential institutions were rather similar to those in primary and secondary schools and had similar information practices.

The vast majority (92%) of clinicians in VA hospitals had Ph.D.'s, 43% were members of specialized organizations, and 12% were APA Fellows. Forty-three percent were engaged in research. They were relatively high in their attendance at APA and regional meetings and colloquia with outside speakers, in their use of the Annual Review of Psychology, and in their production of reports.

Three quarters of the clinicians in universities and colleges held Ph.D.'s and 14% were APA Fellows. Seventy-four percent named research or teaching as their alternatively most demanding activity. They were the highest of all the clinical groups in having journal articles accepted or published.

Clinicians in private practice were high in the percentage holding Ph.D.'s (88%), the number of APA Fellows (19%), and membership in specialized organizations (82%). Over three fourths named clinical work as the most information-demanding activity and almost one fifth named no other activities. They led all of the clinical groups in the percentage giving oral reports.

Scientific Productivity

Six types of reports were used as measures of productivity: APA convention, regional meetings, meetings of specialized organizations, colloquia outside own institution, journal articles accepted, and journal articles published. The greatest numbers of both A and UA respondents were involved in the production of journal articles, the fewest in APA and regional convention presentations. An important finding was the major contribution of UA APA members to productivity, that is the large number of respondents who frequently made each of the various types of reports. Research was ranked first on information demands by the majority of persons who produced reports, and research, particularly in academic settings, was found to be especially important to productivity.

Based on projections from these samples, a slight majority of the entire APA membership would be expected to make zero reports of any type in 1962. At the other end of the distribution, an estimated 2,400-2,500 persons made three or more different types of reports. Unaffiliated APA members would constitute about 90% of all APA members who made zero reports but constituted only about 52% who made 5-6 reports.

Characteristics of Respondents at Different Levels of Productivity

The percentage of respondents holding Ph.D.'s increased with productivity; the age of respondents, however, seemed to have little to do with the productivity factor. APA membership status tended to increase with productivity as did the A sample's memberships in seven of the ten research-oriented specialized organizations under study.

At the highest level of productivity, research was ranked as the first or second most information-demanding activity by a great majority of both the A and UA samples. Research, re-

search guidance, and writing and editing increased in time-consumption and information-demand as productivity increased. Applied and clinical activities plus administrative work and graduate study decreased in these measures as productivity increased.

There were general tendencies for information seeking to increase with productivity. Journal use, meeting attendance, the use of various contacts to seek information, and success in discovering information all increased as the productivity level increased. Both A and UA respondents who were productive attended a great variety of meetings. The APA and regional conventions seemed to have some special attraction for the most highly productive psychologists.

TABLE I

AGE AND EDUCATIONAL AND APA MEMBERSHIP STATUS DATA FOR A (AFFILIATED) AND UA (UNAFFILIATED) RESPONDENTS RANKING PRODUCTIVE ACTIVITIES AS FIRST ON INFORMATION REQUIREMENTS

	Activity Ranked First						All Respondents Ranking Any Activity First	
	Research		Research Guidance		Writing and Editing			
	A N=698	UA N=339	A N=62	UA N=52	A N=77	UA N=36	A N=1,390	UA N=1,002
Median year of birth	1924	1925	1920	1921	1918	1921	1922	1924
Percentage holding doctorates	92%	71%	95%	70%	99%	79%	89%	58%
Percentage of APA Fellows	26%	8%	44%	15%	47%	32%	26%	9%

TABLE II

PERCENTAGE OF A AND UA RESPONDENTS RANKING A PRODUCTIVE ACTIVITY FIRST ON INFORMATION DEMANDS WHO ALSO RANKED A PRODUCTIVE ACTIVITY SECOND ON INFORMATION DEMANDS

	Activity Ranked First						All Respondents Ranking Any Activity First	
	Research		Research Guidance		Writing and Editing			
Activity Ranked Second	A N=698	UA N=339	A N=62	UA N=52	A N=77	UA N=36	A N=1,390	UA N=1,002
Research	--	--	55%	31%	43%	37%	36%*	30%*
Research guidance	26%	16%	--	--	5	3	17	11
Writing and editing	10	5	10	11	--	--	8	4

*The large percentage of respondents in both samples who ranked research first and who could not, therefore, rank it second have been eliminated in calculating those percentages. The N for these two percentages are accordingly reduced by the numbers of persons who ranked research first.

TABLE III

PERCENTAGE OF A AND UA RESPONDENTS RANKING PRODUCTIVE ACTIVITIES FIRST ON INFORMATION REQUIREMENTS WHO RATED VARIOUS MEDIA AS "VERY IMPORTANT" TO THE ACTIVITY

	Activity Ranked First							
	Research		Research Guidance		Writing and Editing		All Respondents Ranking Any Activity First	
Media Rated "Very Important"	A N=698	UA N=339	A N=62	UA N=52	A N=77	UA N=36	A N=1,390	UA N=1,002
Books	35%	36%	35%	33%	65%	65%	44%	48%
Journals	82	79	60	69	73	89	69	63
Discussions with local colleagues	25	30	21	29	18	21	27	28
Discussions (outside own institution)	17	10	10	15	10	3	15	10

TABLE IV

PERCENTAGE OF A AND UA RESPONDENTS RANKING PRODUCTIVE ACTIVITIES FIRST ON INFORMATION REQUIREMENTS WHO USED VARIOUS MEDIA TO LOCATE INFORMATION AND ARE SUCCESSFUL IN LOCATING WORK RELATED TO THESE ACTIVITIES

A. Percentage of Group Using a Particular Medium

	Activity Ranked First							
	Research		Research Guidance		Writing and Editing		All Respondents Ranking Any Activity First	
Media	A N=698	UA N=339	A N=62	UA N=52	A N=77	UA N=36	A N=1,390	UA N=1,002
Attendance of meetings APA	40%	29%	40%	32%	36%	32%	36%	26%
Regional	40	27	29	25	25	21	33	24
Sources of citations								
Annual Review	68	59	61	50	57	63	56	48
Psychological Abstracts	76	80	68	79	67	73	68	70
Psychological Bulletin	53	50	47	48	52	46	52	46
Program of meeting not attended	32	29	23	23	21	24	29	24

B. Experiences of Groups in Locating Related Work

Source of Work or Contact with Source								
Found closely related work being conducted by other scientists	74%	73%	65%	56%	56%	61%	61%	53%
Contacted person doing it	63	57	60	40	47	50	51	39
Found foreign work of interest	52	36	42	23	41	42	22	12
Contacted foreign psychologist	19	12	18	8	9	21	9	4

TABLE V

PERCENTAGE OF A AND UA RESPONDENTS RANKING PRODUCTIVE ACTIVITIES FIRST ON INFORMATION REQUIREMENTS WHO MADE VARIOUS REPORTS OF THEIR WORK

	Activity Ranked First							
	Research		Research Guidance		Writing and Editing		All Respondents Ranking Any Activity First	
Types of Report	A N=698	UA N=339	A N=62	UA N=52	A N=77	UA N=36	A N=1,390	UA N=1,002
Oral reports								
Presentation at APA Convention	19%	12%	11%	6%	9%	3%	14%	6%
Presentation at meetings of regional associations	20	11	8	--	4	3	13	5
Presentation at specialized meetings	29	16	23	12	16	16	21	11
Colloquium given outside employing institution	42	25	27	21	27	21	33	17
Journal articles								
Article published in 1962	53	32	25	15	31	21	28	16
Article accepted in 1962 but not published	43	24	11	13	16	8	20	11

TABLE VI

AGE AND EDUCATIONAL AND APA MEMBERSHIP STATUS DATA FOR A AND UA RESPONDENTS RANKING APPLIED ACTIVITIES AS HIGH ON INFORMATION REQUIREMENTS

	Activity Ranked First						
	Clinical Work		Consulting		Administrative Work*	All Respondents Ranking Any Activity First	
	A N=209	UA N=239	A N=101	UA N=66	A & UA N=89	A N=1,390	UA N=1,002
Median year of birth	1919	1922	1923	1922	1921	1922	1924
Percentage holding doctorates	80%	47%	68%	61%	74%	89%	58%
Percentage of APA Fellows	15	5	16	5	22	26	9

*Ranked first or second in either the A or UA sample.

TABLE VII

PERCENTAGE OF A AND UA RESPONDENTS RANKING THE APPLIED ACTIVITIES HIGH ON INFORMATION REQUIREMENTS WHO RATED VARIOUS MEDIA AS "VERY IMPORTANT" TO THEIR ACTIVITY

	Activity Ranked First					All Respondents Ranking Any Activity First	
	Clinical Work		Consulting		Administrative Work*		
Media Rated "Very Important"	A N=209	UA N=239	A N=101	UA N=66	A & UA N=89	A N=1,390	UA N=1,002
Books	51%	53%	31%	36%	19%	44%	48%
Journals	49	43	41	35	15	69	63
Discussions with local colleagues	40	37	51	44	31	27	28
Discussions (outside own institution)	14	9	21	15	30	15	10

*Ranked first or second in either the A or UA sample.

TABLE VIII

PERCENTAGE OF A AND UA RESPONDENTS RANKING APPLIED ACTIVITIES FIRST ON INFORMATION REQUIREMENTS WHO USED VARIOUS MEDIA TO LOCATE INFORMATION AND ARE SUCCESSFUL IN LOCATING WORK RELATED TO THESE ACTIVITIES

A. Percentage of Group Using a Particular Medium

	Activity Ranked First					All Respondents Ranking Any Activity First	
	Clinical Work		Consulting		Administrative Work*		
Media	A N=209	UA N=239	A N=101	UA N=66	A & UA N=89	A N=1,390	UA N=1,002
Attendance of meetings							
APA	32%	21%	29%	32%	33%	36%	26%
Regional	26	21	14	21	15	33	24
Sources of citations							
Annual Review	25	26	36	38	20	56	48
Psychological Abstracts	52	56	50	69	37	68	70
Psychological Bulletin	23	29	32	28	25	52	46
Program of meeting not attended	24	21	29	23	19	29	24

B. Experiences of Groups in Locating Related Work

Source of Work or Contact with Source							
Found closely related work being conducted by other scientists	46%	36%	69%	50%	40%	61%	53%
Contacted person doing it	34	24	55	41	35	51	39
Found foreign work of interest	18	16	33	18	19	22	12
Contacted foreign psychologist	7	7	13	2	9	9	4

*Ranked first or second in either the A or UA sample.

TABLE IX

AGE AND EDUCATIONAL AND APA MEMBERSHIP STATUS DATA FOR A AND UA RESPONDENTS RANKING TEACHING, RESEARCH OR CLINICAL WORK FIRST ON INFORMATION REQUIREMENTS

	Activity Ranked First					
	Teaching		Research		Clinical Work	
	A N=185	UA N=189	A N=698	UA N=339	A N=209	UA N=239
Median year of birth	1922	1920	1924	1925	1919	1922
Percentage holding doctorates	91%	71%	92%	71%	80%	47%
Percentage of APA Fellows	28	11	26	8	15	5

TABLE X

PERCENTAGE OF A AND UA RESPONDENTS RANKING TEACHING, RESEARCH OR CLINICAL WORK FIRST ON INFORMATION REQUIREMENTS WHO RATED VARIOUS MEDIA AS "VERY IMPORTANT" TO THE ACTIVITY

	Activity Ranked First					
	Teaching		Research		Clinical Work	
Media Rated "Very Important"	A N=185	UA N=189	A N=698	UA N=339	A N=209	UA N=239
Books	71%	70%	35%	36%	51%	53%
Journals	71	64	82	79	49	43
Discussions with local colleagues	14	9	25	30	40	37
Discussions (outside own institution)	3	5	17	10	14	9

TABLE XI

PERCENTAGE OF A AND UA RESPONDENTS RANKING TEACHING, RESEARCH OR CLINICAL WORK FIRST ON INFORMATION REQUIREMENTS WHO USED VARIOUS MEDIA TO LOCATE INFORMATION AND ARE SUCCESSFUL IN LOCATING INFORMATION RELATED TO THESE ACTIVITIES

A. Percentage of Group Using a Particular Medium

	Activity Ranked First					
	Teaching		Research		Clinical Work	
Media	A N=185	UA N=189	A N=398	UA N=339	A N=209	UA N=239
Attendance of meetings APA	26%	26%	40%	29%	32%	21%
Regional	30	26	40	27	26	21
Sources of citations						
Annual Review	62	52	68	59	25	26
Psychological Abstracts	66	68	76	80	52	56
Psychological Bulletin	58	54	53	50	23	29
Program of meeting not attended	20	19	32	29	24	21

B. Experiences of Groups in Locating Related Work

Source of Work or Contact with Source						
Found closely related work being conducted by other scientists	29%	27%	74%	73%	46%	36%
Contacted person doing it	22	22	63	57	34	24
Found foreign work of interest	18	18	52	36	18	16
Contacted foreign psychologist	6	4	19	12	7	7

TABLE XII

WORK SETTINGS OF RESPONDENTS RANKING RESEARCH AND CLINICAL WORK FIRST AND SECOND ON INFORMATION REQUIREMENTS BY A AND UA RESPONDENTS

	Research				Clinical Work			
	Affiliated		Unaffiliated		Affiliated		Unaffiliated	
Setting	Ranked First N=698	Ranked Second N=255	Ranked First N=339	Ranked Second N=198	Ranked First N=209	Ranked Second N=126	Ranked First N=239	Ranked Second N=159
Universities and colleges	63%	55%	51%	48%	13%	25%	13%	30%
Secondary and primary schools	1	2	4	6	3	3	19	15
Federal government facilities*	6	4	7	5	2	---	3	6
State and local government**	1	2	3	4	3	6	5	6
Industrial, consultant firms, etc.	13	20	9	12	1	2	4	2
VA hospitals	3	3	4	10	6	14	13	6
State institutions	3	2	8	3	10	10	14	14
Other hospitals	2	3	4	5	9	10	8	8
Private practice	2	3	<1	1	36	19	8	3
Social agenices	2	3	2	4	13	10	7	6
Other	2	4	6	5	3	4	7	6

*Except VA Hospitals.
**Except hospitals and institutions.

TABLE XIII

PERCENTAGE OF RESPONDENTS RATING VARIOUS INFORMATION MEDIA AS "VERY IMPORTANT" FOR RESEARCH IN DIFFERENT WORK SETTINGS

	Research Work Setting						
	University or College Setting						
Media	Academic Title N=627	Director, etc. N=68	Research Associate or Assistant N=70	Other* N=86	Federal Government N=87	Private Industry N=199	State Residential Institution N=60
Books	35%	28%	43%	35%	30%	27%	52%
Journals	85	72	84	78	75	66	88
Discussions with local colleagues	18	24	37	33	37	31	32
Discussions (outside own institution)	12	16	19	10	21	20	17

*Examples include fellow, laboratory instructor, and lecturer.

TABLE XIV

PERCENTAGE OF RESPONDENTS USING VARIOUS MEANS OF LOCATING INFORMATION FOR RESEARCH IN DIFFERENT WORK SETTINGS AND WHO ARE SUCCESSFUL IN LOCATING WORK RELATED TO THIS ACTIVITY

A. Means Used to Locate Information

	Research Work Settings						
	University or College Setting						
	Academic Title N=627	Director, etc. N=68	Research Associate or Assistant N=70	Other N=86	Federal Government N=87	Private Industry N=199	State Residential Institution N=60
Attendance of meeting APA	35%	40%	44%	20%	33%	40%	32%
Regional	40	24	51	28	37	25	28
Sources of citation							
Annual Review	67	57	66	59	63	45	53
Psychological Abstracts	76	76	77	77	70	59	77
Psychological Bulletin	61	62	71	58	56	47	53
Program of meeting not attended	31	31	43	29	33	25	23

B. Success in Locating Information Related to Research

Found closely related work being conducted by other scientists	72	71	74	71	69	61	72
Contacted person doing it	59	67	57	53	59	53	60
Found foreign work of interest	48	39	56	41	47	32	43
Contacted foreign psychologist involved in such work	17	19	16	15	16	12	22

TABLE XV

PERCENTAGE OF RESPONDENTS MAKING VARIOUS TYPES OF REPORTS IN CONNECTION WITH THEIR RESEARCH IN DIFFERENT WORK SETTINGS

	Research Work Settings						
	University or College Setting						
Types of Report	Academic Title N=627	Director, etc. N=68	Research Associate or Assistant N=70	Other N=86	Federal Government N=87	Private Industry N=199	State Residential Institution N=60
Oral reports							
Presentation at APA convention	17%	26%	20%	9%	18%	12%	7%
Presentation at meetings of regional associations	20	15	14	15	10	8	8
Presentation at specialized meetings	24	34	17	17	26	21	17
Colloquium given outside employing institution	39	49	44	17	25	31	22
Journal articles							
Article published in 1962	51	25	39	34	45	32	38
Article accepted in 1962, but not published	39	22	40	35	33	22	30

TABLE XVI

PERCENTAGE OF RESPONDENTS' GROUPS COMBINING RESEARCH WITH OTHER ACTIVITIES WHO MADE VARIOUS TYPES OF REPORTS IN CONNECTION WITH RESEARCH IN UNIVERSITIES AND COLLEGES

Types of Report	Research-Teaching-Without Clinicians N=269	Research-Teaching-Clinicians N=129	Research-Research Guidance-Without Clinicians N=130	Research-Writing & Editing N=72
Oral reports				
Presentation at APA convention	15%	13%	23%	25%
Presentation at meetings of regional associations	22	16	22	22
Presentation at specialized meetings	24	18	30	33
Colloquium given outside employing institution	40	28	37	44
Journal articles				
Article published in 1962	56	35	59	57
Article accepted in 1962, but not published	44	29	43	47

TABLE XVII

PERCENTAGE OF RESPONDENTS RATING VARIOUS INFORMATION MEDIA AS "VERY IMPORTANT" FOR CLINICAL WORK IN VARIOUS WORK SETTINGS

Media	Clinical Work Settings: University and College N=140	Primary and Secondary Schools N=79	VA Hospitals N=69	State Residential Institutions N=89	Private Practice N=121
Books	49%	51%	45%	54%	56%
Journals	54	47	42	39	48
Discussions with local colleagues	36	39	43	38	40
Discussions (outside own institution)	14	8	7	6	7

TABLE XVIII

PERCENTAGE OF RESPONDENTS USING VARIOUS MEANS OF LOCATING INFORMATION FOR CLINICAL WORK IN DIFFERENT WORK SETTINGS

A. Means Used to Locate Information

	Clinical Work Settings: University and College N=140	Primary and Secondary Schools N=79	VA Hospitals N=69	State Residential Institutions N=89	Private Practice N=121
Attendance of meetings					
APA	22%	27%	33%	26%	27%
Regional	20	23	41	27	25
Sources of citation					
Annual Review	30	23	43	31	22
Psychological Abstracts	58	54	55	60	53
Psychological Bulletin	31	27	32	38	23
Program of meeting not attended	25	14	19	22	25

B. Success in Locating Information Related to Clinical Work

Found closely related work	47	29	45	40	47
Contacted person doing it	29	22	25	27	36
Found foreign work of interest	19	6	14	16	15
Contacted foreign psychologist involved in such work	11	1	4	9	4

TABLE XIX

PERCENTAGE OF RESPONDENTS MAKING VARIOUS TYPES OF REPORTS IN CONNECTION WITH THEIR CLINICAL WORK IN DIFFERENT WORK SETTINGS

Types of Report	Clinical Work Settings: University and College N=140	Primary and Secondary Schools N=79	VA Hospitals N=69	State Residential Institutions N=89	Private Practice N=121
Oral reports					
Presentation at APA convention	4%	--	3%	1%	11%
Presentation at meetings of regional associations	4	1%	9	3	4
Presentation at specialized meetings	11	5	9	7	14
Colloquium given outside employing institution	14	8	10	16	18
Journal articles					
Article published in 1962	8	3	9	5	6
Article accepted in 1962, but not published	6	1	3	1	4

TABLE XX

NUMBER OF PERSONS MAKING EACH TYPE OF REPORT PROJECTED TO TOTAL APA MEMBERSHIP FROM A AND UA SAMPLES

	Percentage APA Membership N=19,947	Oral Presentations: APA Convention	Regional Meetings	Specialized Meetings	Colloquia (Outside Own Institution)	Journal Articles: Accepted	Published
Affiliated	17.2%	560	523	915	1,221	1,065	1,401
Unaffiliated	82.8	1,154	1,302	2,324	3,561	2,324	3,464
Total	100.0	1,714	1,825	3,239	4,782	3,389	4,665

TABLE XXI

PROJECTED PERCENTAGES OF AFA MEMBERS MAKING EACH TYPE OF REPORT WHO WERE AFFILIATED OR UNAFFILIATED WITH SPECIALIZED PSYCHOLOGICAL ORGANIZATIONS AND WHO RANKED VARIOUS WORK ACTIVITIES FIRST ON INFORMATION DEMANDS

Activity Ranked First on Information Demands (Unless Noted)	Percentage of APA Membership N=19,947	Oral Presentations				Journal Articles	
		APA Convention N=1,714*	Regional Meetings N=1,825*	Specialized Meetings N=3,239*	Colloquia (Outside Own Institution) N=4,782*	Accepted N=3,389*	Published N=4,665*
Affiliated respondents							
Research	8.6%	19%	19%	17%	15%	22%	20%
Clinical work	2.6	3	2	2	2	1	1
Teaching	2.3	1	1	1	1	1	1
Applied work	1.2	1	<1	2	1	<1	<1
Research guidance	.8	1	1	1	1	1	1
Writing and editing	1.0	2	1	1	1	1	1
All other	.7	1	<1	1	<1	<1	<1
Total		28	24	24	22	26	25
Persons reporting on second-ranked activity only**	--	5	4	4	3	6	5
Totals for affiliated	17.2	33	29	28	26	31	30
Unaffiliated respondents							
Research	28.0	40	33	28	29	41	39
Clinical work	19.7	2	4	6	9	1	11
Teaching	15.4	3	5	9	9	4	11
Applied work	5.5	2	3	4	3	2	2
Research guidance	4.3	3	--	4	5	3	8
Writing and editing	3.1	3	1	3	3	1	3
All other	6.4	2	5	4	2	1	2
Total		55	47	57	60	54	56
Persons reporting on second-ranked activity only**	--	13	23	15	15	14	14
Totals for unaffiliated	82.8	67	71	72	74	69	70

*Projected total number of persons making each type of report from Table XX. Method of tabulation described in text.
**May include research.

TABLE XXII

PROJECTED PERCENTAGES OF APA MEMBERS MAKING EACH TYPE OF REPORT WHO RANKED RESEARCH FIRST OR SECOND ON INFORMATION DEMANDS IN VARIOUS WORK SETTINGS*

Sample	Percentage of APA Membership N=19,947	Oral Presentations: APA Convention N=1,714**	Oral Presentations: Regional Meetings N=1,825	Oral Presentations: Specialized Meetings N=3,239	Oral Presentations: Colloquia (Outside Own Institution) N=4,782	Journal Articles: Accepted N=3,389	Journal Articles: Published N=4,665
Overall contribution of research							
Affiliated	11.8%	24%	23%	20%	18%	26%	24%
Unaffiliated	44.4	54	47	38	40	54	51
Total	56.2	78	70	58	58	80	75
Contribution of participants in certain research settings							
Affiliated							
Universities							
Academic titles	5.5	12	14	9	10	14	14
Administrative titles	.6	3	1	1	1	2	1
Research titles	.7	1	1	1	1	2	1
Others	.5	1	1	1	<1	1	1
Federal government	.7	2	1	2	1	2	1
Private industry	1.8	3	2	3	2	2	3
State residential institution	.3	<1	<1	<1	<1	1	1
Unaffiliated							
Universities							
Academic titles	15.2	23	23	17	16	27	23
Administrative titles	1.9	--	--	3	3	3	2
Research titles	1.2	6	5	1	1	1	1
Others	4.0	3	5	2	2	3	4
Federal government	2.6	3	1	2	2	2	4
Private industry	4.5	5	3	3	6	5	4
State residential institutions	2.7	2	2	2	2	4	5

*Table combines data from respondents ranking first on information requirements with data from respondents ranking it second.
**Ns from Table XX. See text for method of calculation.

TABLE XXIII

PROJECTIONS FROM A AND UA SAMPLES TO THE TOTAL NUMBER OF APA MEMBERS MAKING VARYING NUMBER OF DIFFERENT TYPES OF REPORTS

	Affiliated		Unaffiliated			
Total Number of Different Types of Report	Obtained in Sample N=1,390	Projected Number in 1962 APA Membership	Obtained in Sample N=1,002	Projected Number in 1962 APA Membership	Total in 1962 APA Membership	UA Percentage of Total (N in Parentheses)
0	426	1,051	550	9,067	10,118	90% (10,118)
1	311	767	233	3,841	4,608	83% (4,608)
2	243	600	111	1,829	2,429	75% (2,429)
3	213	525	71	1,170	1,695	69% (1,695)
4	129	318	26	428	746	57% (746)
5	56	138	11	181	319	52% (348)
6	12	29	--	--	29	
					19,944*	

*Differs from 19,947 because of rounding errors in making projections.

TABLE XXIV

AGE AND DEGREE DATA FOR A AND UA RESPONDENTS WHO VARY IN THE NUMBER OF DIFFERENT TYPES OF REPORTS THEY MADE IN 1962

			Percentage of Each Group at Stated Degree Level	N	Year of Birth: 1899 - Before	1900 - 1909	1910 - 1914	1915 - 1919	1920 - 1924	1925 - 1929	1930 - 1934	1935 - 1939	No Year Given	Median of Dates Given
Affiliated														
0	Report(s)	D*	80%	339	4%	9%	14%	17%	23%	22%	7%	1%	5%	1920
		ND	20	89	2	8	10	10	17	27	19	5	1	1925
1	Report(s)	D	87	271	4	11	12	14	21	24	8	1	3	1921
		ND	12	39	3	3	5	15	15	31	18	8	3	1926
2	Report(s)	D	90	218	1	11	8	15	19	26	17	1	1	1923
		ND	9	21	--	19	--	5	19	14	24	14	--	1927
3	Report(s)	D	97	206	1	13	6	16	23	28	12	--	1	1922
		ND	3**	7										--
4-6	Report(s)	D	98	193	2	9	10	12	26	27	12	1	1	1923
		ND	2**	4										--
Unaffiliated														
0	Report(s)	D	53	292	4	11	14	12	26	21	10	--	3	1921
		ND	47	251	1	8	10	9	22	25	15	7	3	1924
1	Report(s)	D	69	161	5	10	8	17	17	29	14	--	--	1922
		ND	29	68	--	7	6	3	18	24	29	7	6	1927
2	Report(s)	D	72	80	--	14	5	10	29	21	19	3	--	1923
		ND	24	27	--	7	15	4	37	7	22	4	4	1923
3	Report(s)	D	83	59	--	3	10	7	24	36	17	2	2	1925
		ND	17**	12										--
4-6	Report(s)	D	89	33	3	6	9	18	12	30	18	--	3	1925
		ND	11**	4										--

*D = doctorate — ND = nondoctorate. Each pair of percentages add to approximately 100%.
**These groups have 12 or fewer persons, all (with the exception of a single respondent) born since 1920.

TABLE XXV

MEMBERSHIP STATUS IN APA AND MEMBERSHIPS IN APA DIVISIONS AND IN SPECIALIZED GROUPS HELD BY A AND UA RESPONDENTS WHO VARY IN THE NUMBER OF DIFFERENT TYPES OF REPORTS THEY MADE IN 1962

	Percentage of Respondents Having Membership									
	Affiliated					Unaffiliated				
	Number of Different Types of Reports Made					Number of Different Types of Reports Made				
Membership	0 N=426	1 N=311	2 N=243	3 N=213	4-6 N=197	0 N=550	1 N=233	2 N=111	3 N=71	4-6 N=37
APA Status										
Associate	6%	5%	2%	1%	2%	19%	13%	14%	8%	3%
Member	79	66	72	69	59	74	79	74	79	76
Fellow	15	28	27	30	39	7	7	13	13	22
Life	1	1	—	—	—	<1	—	—	—	—
APA divisions*										
1 General	6	7	7	6	9	3	3	1	1	5
2 Teaching of Psychology	6	6	6	8	11	3	2	4	3	3
3 Experimental	8	18	23	33	42	2	2	1	1	8
5 Evaluation & Measurement	7	9	10	8	13	2	3	4	6	11
7 Developmental	3	4	4	6	6	3	2	4	4	16
8 Personality and Social	11	10	12	13	15	8	11	12	13	27
9 Study of Social Issues	6	6	7	9	9	3	6	5	7	11
10 Psychology and Arts	2	1	2	1	4	1	<1	—	—	—
12 Clinical	28	19	18	21	20	10	12	17	21	24
13 Consulting	2	2	3	3	4	1	<1	1	—	3
14 Industrial	6	7	4	3	4	3	3	3	1	5
15 Educational	4	4	5	5	8	2	5	7	6	11
16 School Psychologists	3	2	<1	1	2	3	3	5	3	5
17 Counseling	6	5	4	3	4	5	6	7	4	11
18 Public Service	3	2	2	<1	2	1	3	2	—	5
19 Military	3	7	5	5	7	1	1	—	—	—
20 Maturity and Old Age	3	1	2	1	5	1	<1	4	—	5
21 Engineering	9	9	5	6	7	1	<1	—	3	—
22 Disability	6	3	4	3	3	3	5	10	7	5
23 Consumer Psychology	1	2	<1	1	1	<1	<1	—	3	5
Specialized groups										
Animal Behavior Section**	2	2	8	12	15	No memberships in specialized groups				
Advancement of Psychotherapy	12	14	8	8	5					
Human Factors in Electronics	4	4	2	2	1					
Society of Experimental Psychologists	2	4	5	4	9					
History of Psychology	5	4	5	4	3					
Human Factors Society	16	12	7	8	9					
Psychometric Society	12	17	19	14	21					
Philosophical Psychology	8	9	10	8	8					
Private Practice	21	14	5	6	4					
Psychophysiological Research	2	5	7	8	9					
Psychonomic Society	11	29	33	45	49					
Projective Techniques	17	12	11	8	7					
Physiological and Comparative Psychology	10	11	15	23	21					
Verbal Behavior	1	3	4	5	9					

*Additional divisions have been created since survey but are not included here.
**Full names of organizations may be found in Appendix A. Table I

TABLE XXVI

THE MOST TIME-CONSUMING AND INFORMATION-DEMANDING ACTIVITIES OF A AND UA RESPONDENTS WHO VARY IN THE NUMBER OF DIFFERENT TYPES OF REPORTS THEY MADE IN 1962

	Percentage of Respondents Ranking Each Activity as First or Second on Time Consumption or Information Demands									
	Affiliated					Unaffiliated				
	Number of Different Types of Reports Made					Number of Different Types of Reports Made				
Activity	0 N=426	1 N=311	2 N=243	3 N=213	4-6 N=197	0 N=550	1 N=233	2 N=111	3 N=71	4-6 N=37
Time consumption										
Administrative work	32%	32%	24%	21%	24%	39%	30%	34%	26%	22%
Clinical work	49	30	22	15	9	61	46	36	20	8
Consulting and applied work	26	18	9	9	5	19	15	11	12	8
Research guidance	15	19	30	32	41	7	23	19	29	35
Research	27	58	62	69	75	21	35	51	52	70
Studying for advanced degree	3	2	1	1	<1	7	2	3	1	—
Teaching	30	40	38	37	35	31	39	40	48	43
Writing and editing	7	8	8	10	11	5	2	6	7	8
Information demands										
Administrative work	5	2	4	1	3	5	4	4	1	3
Clinical work	44	25	16	10	4	53	30	19	11	5
Consulting & applied work	26	17	9	12	10	17	19	12	3	6
Research guidance	14	22	26	25	33	12	20	23	22	24
Research	47	65	77	84	90	39	65	70	89	86
Study for advanced degree	5	3	1	<1	<1	10	6	3	2	—
Teaching	34	42	45	40	41	37	40	45	52	55
Writing and editing	8	12	15	21	16	6	7	6	13	19

TABLE XXVII

AREAS OF PSYCHOLOGY SEARCHED BY A AND UA RESPONDENTS WHO VARY IN THE NUMBER OF DIFFERENT TYPES OF REPORTS THEY MADE IN 1962

	Percentage of Respondents Searching for Information									
	Affiliated					Unaffiliated				
	Number of Different Types of Reports Made					Number of Different Types of Reports Made				
Areas Within Psychology*	0 N=426	1 N=311	2 N=243	3 N=213	4-6 N=197	0 N=550	1 N=233	2 N=111	3 N=71	4-6 N=37
Abnormal	56%	44%	47%	36%	49%	65%	58%	52%	66%	57%
Animal	20	33	44	54	53	13	21	23	35	30
Developmental	48	41	45	37	52	56	58	56	68	51
Educational	39	28	29	24	30	48	48	53	52	32
Human experimental	53	61	63	68	72	42	50	62	61	59
Human factors	36	33	24	27	25	25	27	26	18	24
Personality	61	50	46	40	40	78	74	74	76	73
Personnel	26	17	16	15	14	27	24	27	18	14
Physiological	38	44	49	62	63	30	35	32	34	27
Statistics	48	54	58	54	58	44	62	67	55	65
Social	37	40	35	37	35	48	54	64	63	70
Testing	57	41	42	31	31	69	68	67	58	54
Therapy	52	35	32	27	25	56	52	44	45	54

*Areas searched relative to those activities that placed the greatest demands on respondents to gather and utilize scientific information.

TABLE XXVIII

JOURNALS REGULARLY USED BY A AND UA RESPONDENTS WHO VARY IN THE NUMBER OF DIFFERENT TYPES OF REPORTS THEY MADE IN 1962

	Percentage of Respondents Regularly Using Journals									
	Affiliated					Unaffiliated				
	Number of Different Types of Reports Made					Number of Different Types of Reports Made				
Journal	0 N=426	1 N=311	2 N=243	3 N=213	4-6 N=197	0 N=550	1 N=233	2 N=111	3 N=71	4-6 N=37
Journal of Abnormal and Social Psychology	47%	45%	43%	39%	56%	57%	62%	64%	82%	76%
Journal of Consulting Psychology	41	35	32	26	29	52	50	58	61	54
Journal of Experimental Psychology	32	43	51	56	62	19	28	35	39	41
Journal of Comparative and Physiological Psychology	17	31	42	52	55	11	14	19	27	32
Journal of Applied Psychology	26	25	23	20	20	27	28	29	30	27
Journal of Clinical Psychology	31	23	22	22	23	41	40	40	41	38
Psychological Review	42	52	62	68	66	35	50	46	54	76
American Journal of Psychology	23	30	36	42	45	20	24	29	31	27
Educational and Psychological Measurement	21	20	20	15	18	23	31	32	37	32
Psychological Bulletin	46	60	66	69	69	44	57	56	62	68
Journal of Educational Psychology	15	17	17	18	17	23	24	32	28	24
American Psychologist	64	60	64	64	62	68	70	61	69	84
Contemporary Psychologist	36	33	42	41	43	34	34	32	41	59
American Journal of Orthopsychiatry	23	16	17	15	18	23	22	25	32	11
Psychological Monographs	19	26	32	35	43	22	25	29	42	46
Science	32	42	54	67	65	19	26	31	42	49
Psychological Abstracts	53	50	60	61	56	53	57	57	56	57

TABLE XXIX

ATTENDANCE OF MEETINGS BY A AND UA RESPONDENTS WHO VARY IN THE NUMBER OF DIFFERENT TYPES OF REPORTS THEY MADE IN 1962

	Percentage of Group Attending Each Type of Meeting									
	Affiliated					Unaffiliated				
	Number of Different Types of Reports Made					Number of Different Types of Reports Made				
Medium	0 N=426	1 N=311	2 N=243	3 N=213	4–6 N=197	0 N=550	1 N=233	2 N=111	3 N=71	4–6 N=37
Attendance of meetings										
APA	31%	35%	41%	43%	60%	22%	27%	36%	46%	65%
Regional (affiliated with APA)	27	35	36	41	53	24	26	27	35	54
Specialized group	34	34	45	50	59	22	35	42	42	38

TABLE XXX

USE OF VARIOUS MEDIA IN DISCOVERY OF RELATED WORK AND RESULTING CONTACTS WITH PERSONS DOING SUCH WORK BY A AND UA RESPONDENTS WHO VARY IN THE NUMBER OF DIFFERENT TYPES OF REPORTS THEY MADE IN 1962

Method of Discovering Related Work or Type of Contact With Person Doing Such Work	Percentage of Respondents									
	Affiliated					Unaffiliated				
	Number of Different Types of Reports Made					Number of Different Types of Reports Made				
	0 N=426	1 N=311	2 N=243	3 N=213	4-6 N=197	0 N=550	1 N=233	2 N=111	3 N=71	4-6 N=37
Discovered closely related work	52%	67%	77%	80%	83%	49%	70%	75%	83%	86%
Use of various means in discovery of related work										
Journals	19	24	27	30	40	21	24	29	39	41
Books	6	8	9	11	14	7	4	10	13	5
Psychological Abstracts	2	2	3	4	3	3	3	9	7	8
Discussion & correspondence	23	32	40	40	41	19	27	33	39	43
Contact through meetings	16	23	25	36	37	13	26	25	34	27
Subsequently contacted author of such work	39	53	65	75	77	35	53	64	69	76
Discussion	19	29	30	34	35	14	24	30	31	35
Correspondence	28	40	51	61	60	27	39	50	61	59
Found foreign work of interest	26	43	50	62	70	20	32	41	44	46
Contacted foreign psychologist engaged in such work	8	16	18	23	30	7	10	11	20	27

Appendix A

1. Please rank all of the items below that are included among your professional activities, using the number 1 for the most time consuming, 2 for the next most time consuming, etc. Write 0 in the blanks of those which are not included among your activities.

_____ Administrative work (activities such as arranging meetings, handling personnel forms, procurement, routine reports, etc.)
_____ Clinical work (therapy, counseling, testing)
_____ Consulting or applied work (industrial, human factors, etc.)
_____ Research guidance (of students, subordinates)
_____ Research (including the reporting of results)
_____ Studying for an advanced degree
_____ Teaching
_____ Writing and editing, apart from reporting own research
_____ Other (Please specify)_____

2a. Now consider each of the activities you ranked above. Which one of them puts the greatest demand on you to gather and utilize scientific information? (Please name the activity) If none require scientific information, write 0.

Activity _____
For later questions, this will be activity 2a.

For this activity, rate each of the below in terms of how important it is in furnishing scientific information you need. Rate by circling the most appropriate number on the scale.

Of no importance			Somewhat important		Very important	
1	2	3	4	5		Books
1	2	3	4	5		Scientific Journals
1	2	3	4	5		Correspondence
1	2	3	4	5		Discussions with immediate colleagues
1	2	3	4	5		Formal presentation or colloquium by speaker from outside your organization
1	2	3	4	5		Discussions with persons other than your immediate colleagues
1	2	3	4	5		Attendance of conventions.

If you have any other particularly important sources of information for the activity named above in 2a

Please rate them here	Please name them here
1 2 3 4 5	_____
1 2 3 4 5	_____

2b. Which of the activities listed in number 1 do you find to be second most demanding in regard to scientific information? (Please name the activity.) If you do not need scientific information for your other activities write 0.

Activity _____
For later questions, this will be activity 2b.

For this activity, rate each of the below in terms of how important it is in furnishing the scientific information you need. Rate by circling the most appropriate number on the scale.

Of no importance			Somewhat important		Very important	
1	2	3	4	5		Books
1	2	3	4	5		Scientific Journals
1	2	3	4	5		Correspondence
1	2	3	4	5		Discussions with immediate colleagues
1	2	3	4	5		Formal presentation or colloquium by speaker from outside your organization
1	2	3	4	5		Discussions with persons other than your immediate colleagues
1	2	3	4	5		Attendance of conventions.

If you have any other particularly important sources of information for the activity named in 2b

Please rate them here	Please name them here
1 2 3 4 5	_____
1 2 3 4 5	_____

3. Which of the following areas within psychology do you search for the scientific information you need relevant to the activities named in 2a and 2b? For the activity you named in 2a as being most demanding check 2a in the spaces before each area you search. For the areas you search in relation to your second most demanding activity (item 2b above) check 2b.

2a ____ 2b ____ Abnormal
2a ____ 2b ____ Animal and comparative
2a ____ 2b ____ Developmental
2a ____ 2b ____ Educational
2a ____ 2b ____ Human experimental
2a ____ 2b ____ Human factors
2a ____ 2b ____ Personality dynamics
2a ____ 2b ____ Personnel
2a ____ 2b ____ Physiological
2a ____ 2b ____ Statistics and measurement theory
2a ____ 2b ____ Social
2a ____ 2b ____ Testing and psycho-diagnostics
2a ____ 2b ____ Therapy
2a ____ 2b ____ Other (Please name)_____
_____

The following questions relate to the activities which you have listed in 2a and 2b above as the activities which place the greatest demand on you to gather and utilize scientific information. For each category of scientific communication, could you indicate whether you use the category to obtain information important to activities 2a and 2b and to disseminate information resulting from your own work.

4a. Meetings during 1962

Please check the appropriate columns

	Attended meeting to obtain information relative to activity		Made presentation relative to activity	
	2a	2b	2a	2b
Conventions (Please name.)				
Conferences (i.e. a small "convention" that brings together a group of people from different institutions to discuss a single subject) Please name the topic and location of conference.				
Other types of meetings which served as a source or means of disseminating scientific information (Please name or describe.)				

Meetings during 1962 (continued)

Please check the appropriate columns

	Attended meeting to obtain information relative to activity		Made presentation relative to activity	
	2a	2b	2a	2b
Colloquium with speaker from among colleagues or students			XXXX	XXX
Presented colloquium to colleagues	XXXX	XXX		
Colloquia with an outside speaker			XXXX	XXX
Presented a colloquium outside your own institution	XXXX	XXX		

4b. Journals

Check the appropriate columns for those journals you used either to obtain or publish information relative to activities listed in 2a and 2b.

	Used to obtain information relative to activity		Published information relative to activity			
			Article accepted in 1962 but not published		Article published in 1962	
	2a	2b	2a	2b	2a	2b
J. abnorm. soc. Psychol.						
J. consult. Psychol.						
J. exp. Psychol.						
J. comp. physiol. Psychol.						
J. appl. Psychol.						
J. clin. Psychol.						
Psychol. Rev.						
Child Develpm.						
Amer. J. Psychol.						
Educ. psychol. Measmt						
J. Personality						
Psychol. Bull.						
J. acoust. Soc. Amer.						
J. educ. Psychol.						
Psychometrica						
Amer. J. Psychiat.						
J. Psychol.						
Personnel Psychol.						
Amer. Psychologist						
J. Geront.						
Brit. J. Psychol.						
Behavioral Sci.						
J. exp. anal. Behav.						
Percept. mot. Skills						
J. counsel. Psychol.						
J. opt. Soc. Amer.						
Amer. J. ment. Defic.						
Contemp. Psychol.						
Amer. sociol. Rev.						
Amer. J. Sociol.						
Arch. gen. Psychiat.						
Amer. Scientist						
Canad. J. Psychol.						
J. soc. Psychol.						
J. proj. Tech.						
Int. J. group Psychother.						
Amer. J. Orthopsychiat.						
J. soc. Issues						
Psychol. Monogr.						
Personnel Guid. J.						
Psychol. Rep.						
Psychoanal. Quart.						
Psychosom. Med.						
Psychiatry						
Science						
Vocat. Guid. Quart.						
Psychol. Abs.			XXXXXXXXXXXXXXXXXXXXXX			
Others (Please name and check appropriately)						

4c. There are a number of ways of learning about research (i.e. finding citations or reading abstracts or reviews). Which of the following did you use? Check after 2a if used relative to activity 2a, check after 2b if used relative to 2b and check "not used" if not used at all.

2a____ 2b____ not used____ Annual Review of Psychology
2a____ 2b____ not used____ Psychological Abstracts
2a____ 2b____ not used____ Reference section of published article.
2a____ 2b____ not used____ Reviews in Psychological Bulletin
2a____ 2b____ not used____ Published program of meeting you did not actually attend. (Please name the meetings.)

_____

_____

2a____ 2b____ not used____ Informal newsletter (Please name.)

_____

_____

2a____ 2b____ not used____ Any other means including institutional sources like Bio-sciences Information Exchange. (Please name.)

_____

_____

4d. In 1962 did you discover the names and location of any scientists doing work that was very closely related to your own reasarch or applied work?

Activity 2a

____ Yes
____ No
If YES, how?

_____

_____

Activity 2b

____ Yes
____ No
If YES, how?

_____

_____

Did you subsequently contact any of these persons?

Activity 2a

____ Yes
____ No
If YES, how?

_____

_____

Activity 2b

____ Yes
____ No
If YES, how?

_____

_____

5. Did you discover any foreign work that was related to your activities in 1962?

Activity 2a

____ Yes
____ No
If YES, how?

_____

_____

Activity 2b

____ Yes
____ No
If YES, how?

_____

_____

APPENDIX A

TABLE 1

PERCENTAGE OF MEMBERS OF EACH SPECIALIZED PSYCHOLOGICAL ORGANIZATION WITHIN AFFILIATED PORTION OF THE 1962 APA MEMBERSHIP AND AMONG AFFILIATED RESPONDENTS TO SURVEY

Specialized Groups	Affiliated Portion of 1962 APA Membership N=3,428	Affiliated Respondents N=1,390
Psychonomic Society	24%	19%
Society for Projective Techniques	22	18
Psychometric Society	15	12
Psychologists in Private Practice	11	9
Human Factors Society	10	8
Philosophical Psychology Society (Now a division of APA)	10	8
Physiological and Comparative Psychologists (Now a division of APA)	6	5
Psychologists Interested in the Advancement of Psychotherapy	4	3
Section of Animal Behavior and Sociobiology of the Ecological Society of America	3	3
Society for Psychophysiological Research	3	3
History of Psychology Group	3	2
Society of Experimental Psychologists	2	2
Group for the Study of Verbal Behavior	2	1
Professional Group on Human Factors in Electronics	2	1

APPENDIX B

TABLE I

PROFESSIONAL CHARACTERISTICS AND SUBJECT MATTER INTERESTS OF A AND UA RESPONDENTS

A. Educational Status

	Affiliated Respondents N=1,390	Unaffiliated Respondents N=1,002	Journal Users Sample* Respondents N=1,187	Journal Users Sample* Non-Respondents N=885
BA/BS	1%	3%	8%	5%**
MA/MS	8	31	31	41
EdM	<1	2		
EdD	2	5	59	53
PhD	86	57		
Other doctorate	1	<1		
No information	<1	1	1	1

*Sample of APA membership used in APA - PSIEP Report #9, "The Use of Scientific Journals by Psychologists and the Readership of Current Journal Articles" (December 1963).
**The journal users sample included student affiliates of APA which would increase the number of bachelor degrees.

B. APA Membership Status

	Affiliated Respondents N=1,390	Unaffiliated Respondents N=1,002	Journal Users Sample Respondents N=1,187	Journal Users Sample Non-Respondents N=885
APA Membership				
Life member	<1%	<1%	1%	1%
Fellow	26	9	12	7
Member	70	76	65	74
Associate	4	16	13	13
Student affiliate	*	**	9	5

*No student affiliates were included in the present sample.
**Data not available.

C. Subject matter areas of psychology in which respondents seek information

	Affiliated Respondents N=1,390	Unaffiliated Respondents N=1,002	Journal Users Sample N=1,187
Abnormal	48%	62%	48%
Animal and comparative	44	18	19
Developmental	45	57	47
Educational	31	48	40
Human Experimental	61	48	47
Human Factors	30	25	23
Personality Dynamics	50	76	65*
Personnel	19	25	25
Physiological	48	32	27
Statistics and Measurement theory	54	52	**
Social	37	53	48
Testing and Psychodiagnostics	43	67	**
Therapy	37	53	59*
Other	17	13	***

*The subject-matter catogories which the respondents were allowed to check differed in the two studies.
**Category not included on the Journal Users questionnaire.
***Data not available.

APPENDIX B - TABLE I (continued)

D. Respondents' Work Activities With Greatest Scientific Information Requirements.

Activities	Percentages of Affiliated Respondents Ranking Activities First and Second on Requirements for Scientific Information		Percentages of Unaffiliated Respondents Ranking Activities First and Second on Requirements for Scientific Information		Percentages of Journal User Respondents Ranking Activities First and Second on Requirements for Scientific Information	
	First N=1,390	Second N=1,390	First N=1,002	Second N=1,002	First N=1,187	Second N=1,187
Administrative work	1%	2%	1%	2%	3%	3%
Clinical work	15	9	24	16	14	18
Consulting or applied work	7	10	7	9	2	2
Research	50	18	34	20	44	20
Research guidance	4	17	5	11	6	14
Study for advanced degree	1	2	4	3	3	2
Teaching	13	26	19	21	18	21
Writing and editing*	6	8	4	4	**	**
Other	2	2	2	2	3	3

*Apart from own research.
**Category not included on "Journal Users" questionnaire.

APPENDIX B

TABLE II

PERCENTAGES OF RESPONDENTS RANKING VARIOUS INFORMATION MEDIA AS "VERY IMPORTANT" FOR THE ACTIVITY RANKED FIRST ON INFORMATION REQUIREMENTS

Medium	Affiliated Respondents N=1,390	Unaffiliated Respondents N=1,002
Books	44%	48%
Scientific journals	69	63
Correspondence	8	6
Discussions (immediate colleagues)	27	28
Discussions (others)	15	10
Formal presentations (outside speaker or colloquia)	3	3
Attendance of conventions	8	6

APPENDIX B

TABLE III

PERCENTAGES OF RESPONDENTS WHO USED VARIOUS MEANS TO OBTAIN INFORMATION FOR THE ACTIVITY THEY RANKED FIRST ON INFORMATION REQUIREMENTS AND THEIR EXPERIENCES IN LOCATING CLOSELY RELATED WORK

	Affiliated Respondents N=1,390	Unaffiliated Respondents N=1,002
A. Means of Obtaining Information		
Attendance of Meetings		
APA	36%	26%
Regional	33	24
Use of written means to locate research		
Annual Review	56	48
Psychological Abstracts	68	70
Psychological Bulletin	52	46
Published programs of meetings not attended	29	24
B. Means of Discovery of Work Related to Own		
Written		
Journals	23	21
Books	7	5
Psychological Abstracts	2	4
Other	7	11
Informal means		
Outside meetings	28	21
At meetings	21	16
Total discovering related work	61%	53%
C. Contacts Made with Persons Doing Discovered Work		
Nature of contact		
Face to face	23	16
Written correspondence	38	30
Total making such contacts	51	39
D. Discovery of Foreign Work Related to Own and Contacts with Source of Such Work		
Discovered foreign work	22	12
Means of learning about foreign work		
Visits to foreign countries	2	1
Published sources	14	7
Contacts made with persons doing discovered foreign work	9	4

APPENDIX B

TABLE IV

PERCENTAGES OF RESPONDENTS WHO MADE VARIOUS REPORTS OF THEIR WORK RELATIVE TO THE ACTIVITY RANKED FIRST ON INFORMATION REQUIREMENTS

Type of Report	Affiliated Respondents N=1,390	Unaffiliated Respondents N=1,002
Oral reports		
Presentation at APA convention	14%	6%
Presentation at meetings of regional associations	13	5
Presentation at meetings of specialized groups	21	11
Colloquium given outside of employing institution	33	17
Journal articles		
Articles published in 1962	28	16
Articles accepted in 1962, but not published	20	11

APPENDIX C

PART I

Information Practices within the Specialized Organizations[1]

This appendix examines the data on the characteristics and information practices of members of the fourteen specialized organizations sampled in the survey of A persons within the APA membership. To simplify the presentation, abbreviated titles of the organizations have been used, as listed below:

1) Psychonomic Society - Psychonomic
2) Society for Projective Techniques - Projective
3) Psychometric Society - Psychometric
4) Psychologists in Private Practice - Practice
5) Human Factors Society - Factors
6) Philosophical Psychology Society - Philosophical
7) Physiological and Comparative Psychologists - Physiological
8) Psychologists Interested in Advancement of Psychotherapy - Psychotherapy
9) Section of Animal Behavior and Sociobiology of the Ecological Society of America - Behavior
10) Society for Psychophysiological Research - Psychophysiological
11) History of Psychology Group - History
12) Society of Experimental Psychologists - Experimental
13) Group for the Study of Verbal Behavior - Verbal
14) Professional Group on Human Factors in Electronics - Electronics

The information in an earlier report on the subject matter emphasis and membership overlap of the various organizations has been used here to organize this data. (See Part II, Appendix C) The earlier study found that there was: 1) a cluster of three organizations whose major professional activity was clinical work (Projective, Practice, and Psychotherapy), 2) a cluster of ten organizations whose major activity was research, with teaching, consulting and administrative work as secondary activities (Psychonomic, Psychometric, Factors, Physiological, Psychotherapy, Psychophysiological, History, Experimental, Verbal, and Electronics), and 3) a single organization which overlapped both clusters (Philosophical).

For each organization, the data on members of that organization who designated research as the activity which imposed the greatest demand on them, in terms of gathering and using information, were separately examined. (With the exception of Electronics, all of the groups were large enough to permit this analysis.) In addition, most members of the three clinical groups chose clinical work as their most information-demanding activity and the data for these persons were also examined separately. Many members of Factors and Electronics named consulting or applied work as their most information-demanding activity and these persons were also examined separately. The characteristics of respondents and their behavior in seeking and disseminating information are described below.

The three clinical groups indicated, as expected, that clinical work was their most time consuming activity (Techniques 63%, Practice 83%, and Psychotherapy 63%), while other activities were ranked much lower in terms of time consumption (Appendix C, Table I). Consulting and applied work (36% and 30%, respectively) were ranked as the most time consuming activities by those in the Factors and Electronics groups while those in the History group gave teaching this distinction (38%). For all other groups, the most time consuming activity was research, as indicated by 48% of the Psychonomic group, 38% of the Psychometric group, 54% of the Physiological group, 57% of the Behavior group, 58% of the Psychophysiological group, 31% of the Experimental group and 49% of the Verbal group. Research was the second most time consuming activity for those in the Factors, Electronics and History groups. The overlapping group, Philosophical, ranked teaching as the most time consuming activity (34%) and clinical (25%) and research (21%) as the second and third most time consuming activities.

Research generally placed the greatest information demands on members of these groups, and members of the Philosophical group (44%) and the History Group (57%) found research to be more information demanding than time consuming (Appendix C, Table I). Only 26% of the Philosophical group and 20% of the History group ranked teaching high on information demands. Consulting and research were ranked first equally (41% for both) by the Factors group while consulting was most frequently ranked first by those in the Electronics group (50%). Clinical

[1] P. J. Woods of Hollins College and A. James Miller of the University of Nottingham assisted in the drafting of this part of Appendix C.

work placed the greatest information demands on those three organizations making up the clinical cluster.

The most frequent combinations of the most demanding and second most demanding activities for gathering and utilizing scientific information were as follows: Among the research groups (Psychonomic, Psychometric, Physiological, Behavior, Psychophysiological, Experimental and Verbal) research and teaching or research and research guidance were most frequently named, the only exceptions were the Factors and Electronics groups, in which both of the combinations of research as first most demanding and consulting as second most information demanding predominated (22% each). The combination of research and teaching was most frequently mentioned in the Philosophical and Techniques groups (21% and 10% respectively). An equal percentage (10%) of this latter group also named clinical work and teaching as being high on information demands.

Data on the birth dates of members of the various groups showed that those in the Experimental group were the oldest (median year of birth 1905-1909) and members of the History, Philosophical and Practice groups were the next oldest (mdn. year 1915-1919). With the exception of the Physiological group whose median year of birth was 1925-1929, the remaining groups had median birth years in the same interval 1920-1924. Respondents in all of the organizations who chose research as their most information demanding activity tended to be younger than those who ranked other activities high on information demands.

The median interval for the year in which the highest degree was awarded was more uniform than was the year of birth. For members of all groups, the median interval of receipt of their highest degree was 1950-1954, with the exceptions of members of the Experimental and Physiological groups who received their highest degrees with median intervals of 1935-1939 and 1955-1959 respectively.

Data on receipt of the highest academic degree for the various groups show that the percentage of those who held the doctorate ranged from 67% of the Electronics group to 100% of the Experimental group. If the two applied groups were eliminated the range would be restricted to 86-100% for those holding doctorates. When groups were ranked by the percentage of APA Fellows holding membership, there was a range from as high as 83% for Experimental to as low as 12% for Electronics. On the upper end of this scale, the next two highest groups (Psychonomic and History) in terms of the percentage of APA Fellows among their membership, have less than one half as many as Experimental.

With regard to each group's affiliation with the various APA divisions, Division 3 was strongly represented among research organizations and Division 12 included large numbers of the members of the clinical groups. In general, the dominant divisional affiliations were in keeping with the specialized interests of the various groups. The percentage of respondents not affiliated with any division of APA ranged from as low as 7% for Experimental to as high as 44% for Physiological.[2]

INFORMATION PRACTICES

In line with the rating of various sources of scientific information by the total sample, books and journals were usually rated as very important sources, with journals normally being rated first in importance. (Appendix C, Table II). Substantial percentages of respondents, however, rated discussions with immediate colleagues and discussion with persons other than immediate colleagues as very important; in particular 72% of the Factors group, considered discussion with colleagues as being significant. The importance of correspondence seemed to vary among the groups; only 12% of respondents in the Techniques group considered it of importance relative to their most time consuming activity as compared to 44% of those in the Behavior group. The rating of conventions was also varied among members of the organizations. The percentages of respondents who rated this medium as very important ranged from as low as 18% for the History group to as high as 39% for both the Behavior and the Verbal groups. Of all the sources for exchange of scientific information, the formal presentation of colloquium by a speaker outside the respondent's organization was ranked least important in furnishing information relevant to the most time consuming and second most time consuming activities (not shown in table), in all but the three clinical groups, where correspondence was invariably the least important.

Generally the subject matter areas searched for information were as one would expect from the nature of the organization. Thus, the area of human experimental was frequently searched

[2]The latter finding was radically changed, of course, by this organization's becoming an APA Division.

by the research organizations. However, a number of respondents indicated that they had searched for information in almost all of the areas. Those in the History and Philosophical groups, by indicating more areas searched, showed the greatest diversity of interests among their members (Appendix C, Table III).

Among the meetings attended to obtain information relative to the most time consuming and second most time consuming activities, the APA convention, regional meetings and meetings of specialized groups related to the person's interests were generally the meetings most frequently attended. The only exception was the frequent inclusion of state and local psychological societies by members of the three clinical organizations (Appendix C, Table IV). Colloquia with both "inside" and "outside" speakers were also attended fairly often. Conferences played a more important role with regard to the most time consuming activity for the research organizations than for the clinical organizations.

The use of the reference section of published articles was a common way of locating information among members of all the organizations (Appendix C, Table V). The Annual Review of Psychology and the Psychological Bulletin were relatively more frequently used among the members of organizations making up the research cluster than among the other organizations. Psychological Abstracts was used by 60-83% of the sample for all but two organizations (Verbal and Electronics). The use of newsletters showed no relation whatever to type of organization and seems to reflect an irregular pattern for the presence or absence of newsletters in specific areas.

PRODUCTIVITY WITHIN SPECIALIZED ORGANIZATIONS

As mentioned in an earlier section of the report, participation in scientific reporting was used as the basic measure of productivity. As expected, (Appendix C, Table VI), the research organizations generally had a higher level of productivity than clinical and consulting organizations. In terms of the number of journal articles published, the research organizations had a significantly higher level of productivity (between 9% and 23%). This same distribution was evident for the percentage who had articles accepted but not published 22-55% for the research organizations, and from 8-16% for the clinical and applied organizations. When the percentage of presentations is considered, the difference among the groups becomes smaller in size. For research organizations the percentage of presentations made at the APA convention ranged from 14-22% for the research groups as compared to 9-15% for the clinical and consulting groups. Seven percent to 27% of respondents in the research organizations made presentations at regional association meetings while only 5-8% of those in the clinical and consulting organizations made the same type of presentation. Three of the research organizations, Psychonomic, Behavior and Verbal, consistently had a higher level of productivity than the other research groups which, in turn, surpassed the productive level of the clinical and applied organizations.

APPENDIX C

TABLE I

THE MOST TIME CONSUMING AND INFORMATION DEMANDING ACTIVITIES OF MEMBERS OF SPECIALIZED ORGANIZATIONS

	Percentage of Respondents Ranking Each Activity First on Time Consumption or Information Demands													
Activity	Psycho-nomic N=406	Tech-niques N=166	Psycho-metric N=221	Practice N=166	Factors N=155	Philo-sophical N=122	Physio-logical N=204	Psycho-therapy N=138	Behavior N=93	Psycho-physio-logical N=79	History N=60	Experi-mental N=58	Verbal N=49	Elec-tronics N=40
Time Consumption														
Administrative work	16%	11%	19%	2%	21%	12%	8%	9%	11%	9%	13%	26%	8%	28%
Clinical work	1	63	2	83	--	25	12	63	2	3	7	--	2	--
Consulting and applied work	1	2	10	3	36	--	1	3	2	5	--	2	--	30
Research guidance	10	3	7	1	7	2	5	1	10	6	7	17	6	8
Research	48	11	38	2	28	21	54	9	57	58	27	31	49	28
Studying for advanced degree	--	1	--	--	1	--	<1	2	--	1	--	--	--	--
Teaching	20	6	21	7	3	34	17	12	16	14	38	12	33	2
Writing and editing	3	1	1	--	1	4	<1	1	1	--	7	10	2	--
Other	1	2	1	1	3	--	2	--	1	1	2	2	--	5
Information demands														
Administrative work	1	1	2	1	1	2	1	2	1	2	--	--	--	--
Clinical work	1	39	--	59	1	13	8	37	2	--	5	2	--	--
Consulting and applied work	2	3	8	2	41	1	1	2	4	4	--	2	--	50
Research guidance	7	3	10	1	8	3	2	3	3	5	3	7	2	10
Research	70	33	57	20	41	44	68	27	75	81	57	52	69	28
Studying for advanced degree	--	2	--	1	--	2	1	3	1	1	--	--	--	--
Teaching	12	13	14	11	2	26	12	17	9	4	20	24	14	8
Writing and editing	7	5	6	4	4	9	4	7	3	1	12	14	14	2
Other	1	2	2	1	2	--	2	2	1	1	3	--	--	2

APPENDIX C

TABLE II

PERCENTAGE OF RESPONDENTS OF SPECIALIZED GROUPS RATING VARIOUS INFORMATION MEDIA 4 OR 5 ON A SCALE OF 1 (OF NO IMPORTANCE) TO 5 (VERY IMPORTANT) FOR MOST INFORMATION DEMANDING ACTIVITY

Media	Psychonomic N=406	Techniques N=166	Psychometric N=221	Practice N=166	Factors N=155	Philosophical N=122	Physiological N=204	Psychotherapy N=138	Behavior N=93	Psychophysiological N=79	History N=60	Experimental N=58	Verbal N=49	Electronics N=40
Books	67%	81%	69%	84%	62%	82%	70%	76%	68%	70%	72%	81%	65%	60%
Journals	94	88	87	77	74	84	94	80	96	95	85	90	100	72
Correspondence	27	12	29	17	25	19	30	20	44	26	25	24	39	28
Discussions with immediate colleagues	48	57	56	59	72	48	50	62	53	42	45	45	35	58
Discussions with outside speakers	13	22	10	22	12	15	14	25	15	14	12	14	12	12
Discussions with others	44	31	41	33	47	25	40	41	48	39	38	38	43	60
Conventions	32	26	29	30	23	20	37	29	39	34	18	22	39	38

APPENDIX C

TABLE III

SUBJECT MATTER AREAS OF PSYCHOLOGY IN WHICH RESPONDENTS OF SPECIALIZED ORGANIZATIONS SEEK INFORMATION

	Psycho-nomic N=406	Tech-niques N=166	Psycho-metric N=221	Practice N=166	Factors N=155	Philo-sophical N=122	Physio-logical N=204	Psycho-therapy N=138	Behavior N=93	Psycho-physio-logical N=79	History N=60	Experi-mental N=58	Verbal N=49	Elec-tronics N=40
Abnormal	19%	80%	16%	76%	4%	65%	37%	80%	24%	47%	47%	16%	16%	2%
Animal and Comparative	55	11	19	9	12	24	57	17	84	57	42	52	37	12
Developmental	28	57	29	49	6	53	35	49	36	37	42	34	37	8
Educational	16	26	41	30	17	34	14	27	14	8	23	16	28	15
Human Experimental	70	35	55	25	82	44	57	35	50	73	60	78	92	85
Human Factors	24	18	24	14	86	18	15	18	13	23	20	26	8	82
Personality Dynamics	17	82	24	80	9	75	28	83	13	35	50	19	16	8
Personnel	8	7	31	13	26	12	4	13	3	2	10	10	2	18
Physiological	57	25	21	22	46	30	72	21	75	90	40	59	16	42
Statistics and Measurement theory	51	27	86	18	62	34	40	27	42	56	47	34	43	68
Social	19	40	27	35	14	60	22	46	15	20	47	17	20	2
Testing and Psychodiagnostics	14	65	41	63	10	44	19	51	6	23	33	16	8	12
Therapy	5	73	5	76	2	48	17	80	6	10	23	7	8	2
Other	18	11	17	10	19	12	15	14	14	20	18	19	18	18

APPENDIX C

TABLE IV

MEETINGS ATTENDED BY MEMBERS OF SPECIALIZED ORGANIZATIONS TO OBTAIN INFORMATION RELATIVE TO THEIR MOST TIME CONSUMING ACTIVITY

Type of Meeting	Psycho-nomic N=406	Tech-niques N=166	Psycho-metric N=221	Practice N=166	Factors N=155	Philo-sophical N=122	Physio-logical N=204	Psycho-therapy N=138	Behavior N=93	Psycho-physio-logical N=79	History N=60	Experi-mental N=58	Verbal N=49	Elec-tronics N=40
APA	40%	35%	38%	38%	37%	34%	41%	38%	36%	44%	43%	34%	45%	48%
Regional	41	34	31	24	22	24	42	28	46	33	42	41	55	12
State or local	5	23	7	34	4	15	10	23	5	8	15	3	2	--
International	1	2	<1	1	--	3	<1	--	1	1	--	2	--	2
Specialized groups	41	43	30	40	53	23	40	38	44	51	22	31	39	52
Other conventions	7	5	5	5	9	2	9	6	10	8	2	10	8	8
Colloquium speaker colleague or student	44	40	35	31	29	36	49	38	39	47	32	48	53	25
Colloquium outside speaker	45	32	41	31	24	34	48	33	47	43	42	50	49	15
Conferences	25	18	28	24	26	20	21	20	34	23	25	34	33	25
Other	13	18	13	23	12	11	8	19	17	11	8	22	14	18

APPENDIX C

TABLE V

PERCENTAGE OF RESPONDENTS OF SPECIALIZED ORGANIZATIONS WHO USED MEDIA TO LOCATE INFORMATION RELEVANT TO THEIR MOST TIME CONSUMING ACTIVITY

Media	Psychonomic N=406	Techniques N=166	Psychometric N=221	Practice N=166	Factors N=155	Philosophical N=122	Physiological N=204	Psychotherapy N=138	Behavior N=93	Psychophysiological N=79	History N=60	Experimental N=58	Verbal N=49	Electronics N=40
Annual Review	70%	44%	61%	32%	50%	50%	67%	47%	71%	73%	72%	78%	73%	60%
Psychological Abstracts	68	72	68	60	64	78	73	62	66	81	83	66	55	52
Reference section	83	61	76	50	72	66	78	62	85	87	75	79	92	72
Psychological Bulletin	64	41	53	31	39	48	64	42	66	82	58	57	65	42
Programs	33	28	28	26	35	24	31	24	38	38	33	26	28	40
Newsletters	18	26	13	32	17	20	27	37	38	51	28	17	12	20
Other	25	16	20	11	44	13	29	12	26	42	13	22	43	42

APPENDIX C

TABLE VI

PERCENTAGE OF RESPONDENTS OF SPECIALIZED ORGANIZATIONS WHO MADE VARIOUS REPORTS OF THEIR WORK RELATIVE TO THEIR MOST TIME CONSUMING ACTIVITY

Type of Report	Psychonomic N=406	Techniques N=166	Psychometric N=221	Practice N=166	Factors N=155	Philosophical N=122	Physiological N=204	Psychotherapy N=138	Behavior N=93	Psychophysiological N=79	History N=60	Experimental N=58	Verbal N=49	Electronics N=40
Oral report														
Presentation at APA convention	18%	12%	21%	9%	11%	14%	19%	15%	17%	19%	18%	14%	22%	12%
Presentation at meetings of regional associations	22	8	11	5	8	11	20	8	27	18	7	21	24	8
Presentation at specialized meeting	29	20	25	16	26	20	29	14	28	34	8	17	24	12
Colloquium given outside employing institution	45	19	32	20	22	33	46	20	54	38	27	57	47	20
Journal articles														
Article published in 1962	50	22	36	9	23	36	45	19	59	48	33	53	61	17
Article accepted in 1962 but not published	38	14	30	8	15	23	30	16	47	45	22	31	55	15

Appendix C
Part II

PSYCHOLOGICAL ORGANIZATIONS:

THEIR NATURE AND MEMBERSHIP PATTERNS

PAUL J. WOODS
Hollins College

RECENT years have witnessed the formation of a number of groups in psychology, not affiliated with the APA, which are primarily concerned with facilitating communication related to scientific information and professional problems. In a study of these organizations[1] our first task has been to ascertain the characteristics of the APA members who belong to these groups and the overlaps of memberships among these organizations and the divisions of APA. The ultimate goal is to study the information exchange activities of these organizations and their general influence on professional and scientific activities. The results reported here have been used in the planning of a study of these activities that is currently in progress.

To the best of our knowledge there were 14 major groups of this sort when we began collecting our data; 2 of them have now become divisions of the APA. It is interesting to note that all but 3 originated within the last 8 years. Many of them are expanding rapidly, and this study describes the state of these groups in the spring of 1962 when we obtained their membership lists. At that time 3,428 APA members, or 17.2% of the APA, held 4,267 memberships in these groups. The great majority belonged to only 1 group, but 709 did belong to 2 or more.

Figure 1, which is referred to later in the course of describing each group, gives a general idea of the relative sizes of these organizations as well as their major overlaps. The background, purpose, functioning, and membership of each group is given below, the organizations being taken in order according to the number of APA members they contained at the time of the study. We have limited our study *only to the APA members in each group*, and have examined the structure of these groups and its relation to the divisional structure of APA. Table 1 summarizes the group sizes and indicates the number of overlapping memberships between the APA divisions and each

[1] This work was conducted under subcontract to a National Science Foundation sponsored Project on Scientific Information Exchange in Psychology, directed by William D. Garvey and Belver C. Griffith.

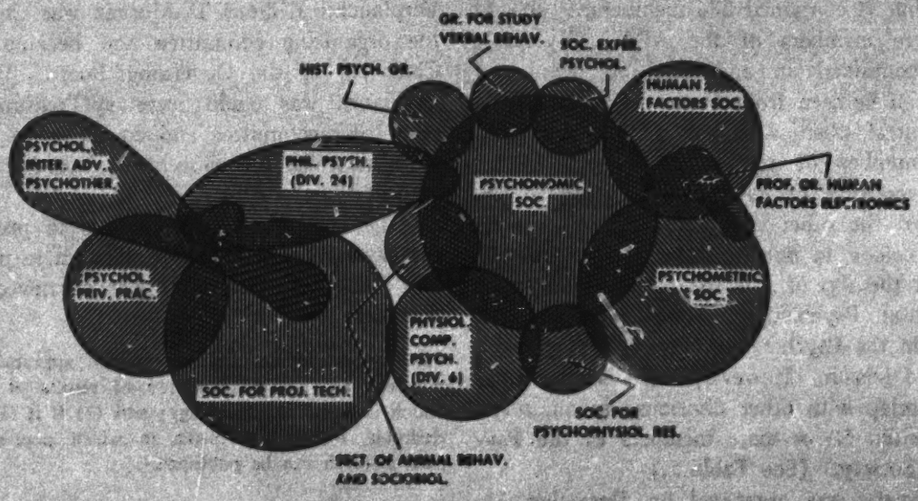

FIG. 1. Approximation of the relative sizes and major overlaps of psychological organizations in the spring of 1962.

From the August, 1964 issue of the American Psychologist.

TABLE 1

NUMBER OF OVERLAPPING MEMBERSHIPS BETWEEN EACH APA DIVISION AND EACH GROUP

Groups in rank order according to total number of APA members	Total membership	Number of APA members	% of APA members	Number of members in each division				
				680	708	859	669	653
				1. General	2. Teaching	3. Experimental	5. Measurement	7. Developmental
1. Psychonomic Society	886	813	91.8%	111	98	500	96	28
2. Society for Projective Techniques	899	768	85.4%	17	30	12	14	54
3. Psychometric Society	703	513	73.0%	26	19	63	206	8
4. Psychologists in Private Practice	394	383	98.5%	9	12	2	5	19
5. Human Factors Society	856	358	41.8%	10	17	49	21	1
6. Philosophical Psychology (now Div. 24)	353	353	100%	32	40	19	12	22
7. Physiological and Comparative (now Div. 6)	341	341	100%	18	13	80	8	16
8. Advancement of Psychotherapy	210	201	95.7%	9	7	2	3	11
9. Section on Animal Behavior	930	129	13.9%	12	13	60	6	7
10. Psychophysiological Research	195	109	55.9%	12	7	35	4	4
11. History of Psychology	110	94	85.5%	20	19	19	5	6
12. Society Experimental Psychology	82	78	95.1%	12	10	74	3	4
13. Verbal Behavior	80	63	78.8%	6	9	34	2	5
14. PGHFE	683	59	8.6%	2	1	10	2	—

group. (The division sizes are based on figures available in the 1962 APA *Directory*.)

The Psychonomic Society

In terms of the number of APA members affiliated with this organization as of July 1, 1962, this is the largest of the groups we have studied. At that time it contained 886 members, 91.8% of which were members of the APA. (By early 1964 it contained an additional 50 members.) Also, as can be seen from Figure 1, it occupies a rather central position drawing its membership from a number of the other groups. Indeed slightly over 48% of its members belong to one or more of the other groups. Also 84% of its members belong to one or more divisions in the APA. At the top of this list is the Division of Experimental Psychology; 61.5% of the APA members in the Psychonomic Society are affiliated with this Division. However, there is also widespread overlap with other divisions; in all, seven others contain 50 or more members of the Psychonomic Society. (See Table 1.)

This society was organized on December 31, 1959, at the annual meeting of the American Association for the Advancement of Science (AAAS). The organizing committee which subsequently became the first governing board was constituted as follows in alphabetical order: W. J. Brogden, William K. Estes, Frank A. Geldard, Clarence H. Graham, Lloyd G. Humphreys, Clifford T. Morgan, William D. Neff, Kenneth W. Spence, S. Smith Stevens, Benton J. Underwood, and William S. Verplanck. Clifford T. Morgan was Chairman of the organizing committee and became the first Chairman of the Governing Board. William S. Verplanck was made Secretary-Treasurer of the organizing committee and continues to hold that same post in the Governing Board up to the present time.

"The object of the society is to promote the communication of scientific research in psychology and allied sciences."[2] It was organized for two purposes:

(1) To arrange for, and to conduct, appropriate annual meetings for the dissemination of results of recent research in scientific psychology; and (2) if it should prove desirable, to produce media in which papers reporting such research can be published.[3]

[2] Bylaws of the Psychonomic Society.

[3] Invitational letter from Clifford T. Morgan, Chairman of the Organizing Committee.

Table 1—Continued

NUMBER OF OVERLAPPING MEMBERSHIPS BETWEEN EACH APA DIVISION AND EACH GROUP

Number of members in each division														
1,659	856	139	2,577	230	775	680	820	1,103	283	8	241	352	824	220
8. Personality and Social	9. SPSSI	10. Esthetics	12. Clinical	13. Consulting	14. Industrial	15. Educational	16. School	17. Counseling	18. Public Service	19. Military	20. Maturity	21. Engineering	22. Disability	23. Consumer
88	42	17	57	8	40	29	—	18	3	73	22	61	7	8
119	64	4	457	32	15	10	42	49	38	10	15	—	45	9
50	25	5	22	17	75	54	6	32	7	27	11	22	5	9
52	23	4	198	22	14	12	28	44	14	4	8	—	31	4
11	7	2	6	1	48	6	—	7	1	57	4	156	1	6
93	60	17	102	11	7	15	10	32	7	6	11	3	8	2
30	22	3	53	3	1	4	2	6	2	5	9	9	15	4
42	17	7	88	7	3	3	10	24	11	—	5	—	15	—
5	10	2	6	—	—	1	—	1	—	4	1	2	2	2
17	4	2	25	2	1	2	1	2	2	3	3	1	5	1
27	18	7	11	2	4	8	—	5	—	2	6	2	5	—
7	4	4	2	—	2	6	—	—	1	12	5	5	—	—
12	5	1	6	—	—	5	—	—	1	2	1	1	—	1
—	1	—	—	—	8	—	—	—	—	9	—	41	—	—

Membership is by election of the Governing Board and the chief qualification is that the "person must hold the Ph.D. degree or equivalent, and must have published significant research other than the doctoral dissertation."[4] The society has held annual meetings since its founding which so far have coincided with the first 3 days of the APA convention, and have been held at a nearby university.

The Society for Projective Techniques and the Rorschach Institute, Inc.

From a modest beginning in 1936, initiated by Bruno Klopfer, this society has grown to be one of the largest groups in psychology. For 10 years it published a mimeographed quarterly called *The Rorschach Research Exchange*. In the fall of 1939 the Rorschach Institute was organized and after another 7 years the *Journal of Projective Techniques* finally replaced the earlier mimeographed quarterly. With the initiation of this journal the Rorschach Institute changed its title into the Society for Projective Techniques. Annual meetings are held at the APA consisting of papers, symposia, business meetings, and a presidential address. As of March 1962 there were 899 members of which 85.4% were members of the APA. (The membership decreased to about 750 by early 1964.) The majority of members are interested in clinical practice, but many are also interested in the research use of projective techniques. Almost 60% of the members are members of the Division of Clinical Psychology and over 15% are members of the Division of Personality and Social Psychology. In all, a total of over 76% of the APA members in the society belong to one or more of the divisions in APA and slightly over 85% of the total membership are members of the APA. Their major overlaps are with the other clinical groups (PIAP and PPP) and with what has now become Division 24.

[4] Bylaws of the Psychonomic Society.

The Psychometric Society

This society was formed at the APA meetings on September 4, 1935. At this time L. L. Thurstone was elected President, Paul Horst, Secretary, and Jack W. Dunlap, Treasurer. The following year the Psychometric Corporation was formed for the principal function of publishing the journal, *Psychometrika*. The society sponsors symposia and paper sessions at the annual APA meetings.

As of July 1962 there were 703 members of which 73% were members of the APA. (About 125 more had been added by early 1964.) Of these slightly less than 30% belong to one or more of the other groups in the present study, the major overlap being with the Psychonomic Society as shown in Figure 1. About 65% of the APA members in the society belong to at least one APA division, the principal affiliation being the Division of Evaluation and Measurement to which about 40% of the society's members belong. Just under 15% belong to the Division of Industrial Psychology, and three other divisions contain 50 or more members. A full history of the society was presented in Jack Dunlap's Presidential Address in September 1941, which was subsequently published in *Psychometrika*. The general purpose of this society, aside from publishing the journal, is

> to promote the development of psychology as a quantitative rational science, involving the formulation of hypotheses in mathematical form, their development into a consistent quantitative psychological theory, and quantitative tests of the agreement between theory and experimental data.[5]

Psychologists in Private Practice (PPP)

Formed at the 1959 APA meeting, the purpose of this group "is to bring together all psychologists in private practice for the interests of the public, psychological science, and the profession [Jones & Marquit, 1960]." John Hall Jones was the initial Chairman and Evelyn T. Rule was and still is Secretary-Treasurer. The group publishes a newsletter and sponsors sessions at the APA meetings. As of December 1961 there were 394 members of which 98.5% were members of the APA. (By early 1964 this figure had risen to about 600.) A little less than 30% of the people in this group belong to one or more of the other groups in this study, the two major overlaps consisting of the Society for Projective Techniques and Psychologists Interested in the Advancement of Psychotherapy. Over 71% of the APA members in PPP belong to one or more of the divisions of APA. Over 50% of the members belong to the Division of Clinical Psychology, and the next highest is the Division of Personality and Social Psychology with slightly over 13%.

Human Factors Society

Initiated in 1956 and officially organized on September 25, 1957, the Human Factors Society

> was organized to increase and diffuse the knowledge of man in relation to machines and his environment, to provide for interchange of ideas concerning the various scientific and technical fields concerned, and to promote the application of this knowledge to the design of systems and devices of all kinds.[6]

The society holds a technical program once a year, publishes a bimonthly journal, *Human Factors*, and a monthly news bulletin, *Human Factors Society Bulletin*.

As of March 1962 there were 856 members of which approximately 42% were members of the APA. (By early 1964 this group had grown to approximately 1,200 members.) Of the APA members about 30% belonged to one or more of the other groups in this study. The Psychonomic Society had the greatest overlap with 12.6% of the APA members in the Human Factors Society, and the Professional Group on Human Factors in Electronics had the next highest with approximately 11%.

The largest overlap with the APA divisions occurs with Division 21, the Society of Engineering Psychologists, with which almost 44% of the APA members of the society are affiliated. The next highest is the Division of Military Psychology with just under 16%, and then the Division of Experimental Psychology with 13.7% and the Division of Industrial Psychology with 13.4%.

Division of Philosophical Psychology

This group was included in the study because it was a new group petitioning for divisional status at the time our data were collected. Beginning in 1960, Edward Scott, Joseph R. Royce, Henry L. Drake, Joseph Lyons, and Edward Joseph Shoben contacted members of the APA concerning their interest in forming such a Division. The Council of Representatives was petitioned in March 1962, and divisional status was granted at the 1962 APA meeting.

Quoting from the petition

> there is presently no provision within APA for the facilitation of philosophical sophistication among its interested members, no forum in which the problems of logic and morals, religion and social theory, epistemology and metaphysics, or even philosophy of science, all becoming so visibly a part of psychology's widening horizons, can be productively discussed. . . .

This, then, was the purpose for forming the Division.

[5] Certificate of Incorporation of Psychometric Society.

[6] Human Factors Society Directory, 1962.

Of the 353 APA members in this group (it was about 60 stronger by early 1964) 24.2% belonged to one or more of the other groups. As can be seen from Figure 1, this group forms the only significant bridge in the structure between the clinical groups on the one hand and all of the others, but this is not a numerically significant bridge in that the overlap with the Psychonomic Society consists of only 25 people; the overlap with the Society for Projective Techniques, 25 people; Psychologists in Private Practice, 15 people; and Psychologists Interested in the Advancement of Psychotherapy, 14 people.

With respect to divisional status over 72% of the petitioners belong to at least one other division. The largest was the Division of Clinical Psychology, with just under 29%; next was the Division of Personality and Social Psychology with a little over 26%; third, SPSSI with just under 17%; and fourth, the Division on the Teaching of Psychology with just over 11%.

Division of Physiological and Comparative Psychology

Just as with the Division of Philosophical Psychology, this group was petitioning for divisional status at the time our data were collected. Sufficient interest was generated at an organizational meeting called by Sidney Weinstein at the 1959 APA convention, and subsequently, so that the Council of Representatives was petitioned in March 1962, and divisional status was granted at the 1962 APA meeting.

> The purpose of this organization shall be (a) to promote teaching and research in the general fields of physiological and comparative psychology, (b) to stimulate the exchange of information among its members, (c) to encourage the development of psychology as a science, and (d) to develop close relations and interchange of information with other sciences.[7]

There were 341 members in this Division at the time of the study (it gained another 75 by early 1964) and approximately 45% belonged to one or more of the other groups. The largest was the Psychonomic Society which contained almost 27% of the members of this Division. The next largest is the Section of Animal Behavior and Sociobiology which contains just over 10%.

About 54% of the members of this Division belong to other divisions in APA with the largest being the Division of Experimental Psychology containing 23.5%, and the next largest the Division of Clinical Psychology containing 15.5%.

Psychologists Interested in the Advancement of Psychotherapy (PIAP)

This is an organization consisting almost entirely of APA members, formed in 1960, whose purpose

> is to provide a single professional group for all those interested in psychotherapy in order to promote high standards of practice, training, continuing scientific growth; to encourage development of effective methods of teaching therapy; and to stimulate research.[8]

The membership list of December 1961, with which we worked, contained 210 names almost all of which were APA members, but this is one of the groups which has been expanding rapidly and by early 1964 it contained approximately 1,100 members. The group publishes a bulletin, sponsors symposia and workshops, and has recently established a journal, *Psychotherapy*. Almost 43% of the members at the time of the study belonged to one or more of the other groups. Psychologists in Private Practice contained almost 24% of these people and the Society for Projective Techniques almost 14%.

Over 68% of the members belong to one or more divisions in APA with by far the largest being the Division of Clinical Psychology containing almost 44%; next is the Division of Personality and Social Psychology which contains almost 21%.

Section of Animal Behavior and Sociobiology of the Ecological Society of America and of the American Society of Zoologists

Since the late 1950s this group has been affiliated with both parent organizations. It grew out of an informal committee for the study of animal societies under natural conditions which began functioning in 1947. The bylaws state that

> the study of general problems of behavior and social organization is basic to theoretical science and human welfare. The purpose of this section shall be to advance, coordinate, and assist research and publications on these subjects, and to act as a liaison agency between workers in the various scientific fields involved.

The Section publishes a newsletter, sponsors sessions at American Institute of Biological Sciences

[7] Bylaws of the Division of Physiological and Comparative Psychology.

[8] Invitational letter from Leonard Pearson, Secretary.

meetings as well as AAAS meetings, and since 1940 has become affiliated with the *British Journal of Animal Behavior*. As of March 1962 the society had over 900 members but only about 14% of these were members of the APA. (About 150 more were added by early 1964.) Of these 14%, about two-thirds belong to one or more of the other groups. Of the APA members in the Section 46.5% belong to the Psychonomic Society, and what is now Division 6 contains about 27%.

About two-thirds of the APA members also belong to one or more divisions. The Division of Experimental Psychology contains about 46.5% and is by far the division best represented in the membership.

Society for Psychophysiological Research

In 1954 Albert F. Ax began circulating the *Psychophysiological Newsletter*, and the Society subsequently evolved from this beginning. Chester Darrow was elected the first President in 1960. Most of the members of the society are doing research on the physiology of intact human organisms and the major purpose of the group is to facilitate communication among its members.

As of October 1961 there were 195 members in this group, of which about 56% were members of the APA. (This group has shown rapid expansion since that time, however, and by early 1964 numbered over 350 members.) About 51% of the members which we studied belong to one or more of the other groups. The greatest overlap was 27.5% with the Psychonomic Society, and with what is now Division 6, which had over 25%. Over 63% of the APA members of the Society belong to one or more divisions of APA. Almost one-third of this number belong to the Division of Experimental Psychology and about 23% to the Division of Clinical Psychology. The next highest is the Division of Personality and Social Psychology with a little less than 16%.

History of Psychology Group

Early in 1959 John C. Burnham, David Bakan, and Robert I. Watson met to discuss the initiation of work in the history of psychology. They began to query members of the APA concerning their interest in this field and scheduled their first meeting for the 1960 APA convention. The group has grown from this beginning to where it now publishes a newsletter, conducts meetings at APA conventions, and has been instrumental in having the Board of Directors appoint an ad hoc Committee on Psychological Archives composed of Leonard Carmichael, W. Clark Trow, and Robert I. Watson as Chairman.

Their purpose is to bring together people who are concerned with the history of psychology and to consider matters of mutual concern, two of which were "(1) the relative scarcity of publication outlets for articles on the history of psychology and (2) a necessity of doing something about papers that form the archives of the APA."[9]

As of May 1962 there were 110 members of which over 85% were members of the APA. (The size of this group has remained approximately the same.) Almost 48% of this number belonged to other groups in the present study. The major overlap was with the Psychonomic Society, which contained over 25%, and what is now Division 24, which contained almost 15%. Almost 80% of the APA members in the group belong to one or more divisions. Division 8 is the largest containing almost 29% and Divisions 1, 2, 3, and 9 all containing approximately 20%.

Society of Experimental Psychologists

Founded as an informal discussion group by E. B. Titchener in 1904, this is the oldest of our organizations. According to Edwin G. Boring,

> the purpose of the original founding by Titchener was to meet the need of informal, stimulating discussion of a limited, like-minded group of experimental psychologists in a manner which the rapidly-growing APA could not provide, and in a period when scientific psychology still felt that it needed stimulation in order to secure its position among the sciences.[10]

Formal organization, however, was not achieved until 1929, and the bylaws adopted at that time state that "the object of the society shall be to advance psychology by arranging informal conferences on experimental methodology." Since 1929 membership has been achieved by election. Annual meetings are held, and also, through the Warren Medal, "outstanding work in experimental psychology in the United States or Canada [Boring, 1938]" is recognized usually on an annual basis.

[9] Robert I. Watson, personal communication, May 15, 1962.

[10] Edwin G. Boring, personal communication, January 14, 1963.

There were 82 members of this group in November 1961, and over 95% of this number belong to the APA and are affiliated with at least one division. (By early 1964 there were 87 members in all.) The only significant overlap with any of the other groups in this study was with the Psychonomic Society which contains over 75% of the APA members. Of the 78 APA members 69 of them are Fellows of the Division of Experimental Psychology and 5 are members of this Division. Divisions 1 and 19 contain just over 15% and Division 2 almost 13%.

Group for the Study of Verbal Behavior

This group was organized by a small group of psychologists meeting at APA in 1957. This group included James Deese, George A. Miller, Charles Cofer, and Weston A. Bousfield. Bousfield served as secretary until 1960 and was followed by Deese. At the time of our study the group was primarily a mailing list of people interested in exchanging information about verbal behavior and psycholinguistics. The secretary served as a clearing house for the mailing of reprints, prepublication copies, progress reports, and informal memos to the members. Recently, however, this functioning has been discontinued as the job became too big for the secretary to handle, and as a new journal, *The Journal of Verbal Learning and Verbal Behavior*, fulfilled part of the need for communication among the members. The mailing list, which by early 1964 consisted of about 100 names, is still available for those wishing to contact people working in this area.

As of December 1961 there were 80 members, of which almost 79% were members of the APA. Over 57% of this group belonged to one or more of the other groups with the largest overlap being the Psychonomic Society which contains over 50% of the APA members in the group. Almost three-fourths of the group's APA members belonged to one or more divisions. The largest overlap was with Division 3, containing 54%. The next was Division 8, containing 19%, and Division 2, containing just over 14%.

Professional Group on Human Factors in Electronics

This is actually a rather large group of almost 700 members, but is at the bottom of our list in size because only a small percentage are members of the APA. As of March 1962 only 59 members of this group were APA members. The purpose of this group, which was founded in March 1958, is to aid cooperation and exchange of information regarding "the development and application of human factors knowledge germane to the design of electronic equipment."[11] Members of the Institute of Radio Engineers who have "an interest in any phase of the field of interest of the group" may affiliate. The group conducts meetings which include paper reading sessions, and publishes a newsletter and a journal, *IRE Transactions on Human Factors in Electronics*.

Eighty-three percent of the APA members in the group belong to one or more of the other groups in the study. The largest overlap is with the Human Factors Society, which contains approximately two-thirds of this number, and second, the Psychometric Society which contains almost 19%. Over 75% of the APA members in the group belong to at least one Division in APA with the largest overlap, almost 70%, occurring with the Society of Engineering Psychologists (Division 21).

Conclusion

In conclusion it should be apparent that the subgroup structure of American psychology is becoming exceedingly complex. This complexity is apparent not only in the number of groups that have been formed in recent years but in the interrelationship among these groups and among the Divisions of APA. With the people who belong to two or more of these groups we actually found a total of 125 different combinations of memberships.

Indications are that this trend towards forming special-interest groups will probably continue. With the expansion in size of existing groups and formation of new groups it will be interesting to see how Figure 1 changes over the next 5 to 10 years.

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[11] Constitution IRE Professional Group on Human Factors in Electronics.